THE PEPSI BOTTLING GROUP

April 21, 2003

Mr. Seth Ausubel
Remedial Project Manager
United States Environmental Protection Agency
Region II
Emergency and Remedial Response Division
290 Broadway, 19th Floor
New York, New York 10007-1866

Re: Supplemental Response on Behalf of Bottling Group, LLC, d/b/a/ The Pepsi Bottling Group ("PBG") to the Request For Information Pursuant to Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq.; re Berry's Creek Study Area, Bergen County, New Jersey.

Dear Mr. Ausubel,

Bottling Group, LLC would like to supplement its answer to question number 16 in our December 19, 2002 response in the above-referenced matter. This supplemental information is based on additional inquiries and investigations conducted by Bottling Group, LLC.

If you have any questions or wish to clarify some point, please give me a call to discuss.

Sincerely,

David H. Patrick
Operations Counsel

cc: Mr. Clay Monroe, Esquire
Office of Regional Counsel
290 Broadway, 17th Floor
New York, New York 10007-1866

366959

SUPPLEMENTAL RESPONSE

Question 16. Identify all leaks, spills, or releases into the environment of any hazardous substances, pollutants, or contaminants that have occurred, or are occurring, at or from the Site. Specifically identify and address any leaks, spills or releases to the Berry's Creek Study Area. Identify:

a. when such releases occurred;

b. how the releases occurred;

c. the amount of each hazardous substances, pollutants, or contaminants so released (for substances contained in any sewage effluent from the Site, provide discharge monitoring reports or other data indicating discharge concentrations and loads, as available);

d. where such releases occurred;

e. where such releases entered the Berry's Creek Study Area, if applicable; and

f. the pathway by which such releases entered the Berry's Creek Study Area, including any storm sewers, pipes, or other conveyances discharging to a water body or wetland; or via surface runoff, groundwater discharge, or any spills, leaks, or disposal activities.

ORIGINAL RESPONSE: We believe that environmental consultant (Dunn Corporation) may have reports in their possession that addresses question 16 parts a-f. We are attempting to locate these reports, and will supplement our answer accordingly.

Respondent: David H. Patrick, Esq.
Documents: Correspondence marked as Exhibits G & H.

SUPPLEMENTAL RESPONSE: According to the Dunn Report, dated June 1992, attached as Exhibit 1, a subsurface investigation was performed to determine whether there had been a release to the environment from one or more underground storage tanks on the subject property. The Dunn Report concluded that although there were impacts from the UST system to both soil and groundwater, all levels of contaminants detected were within the State established criteria and no further action was required. Respondents were unable to locate representatives of the Dunn Corporation through directory assistance or Internet searches to obtain further information, including the actual laboratory data for soil and groundwater samples.

Respondents contacted its then counsel of record, Bressler, Amory & Ross and requested a copy of their file on the subject Premises. Counsel was able to locate and provide a copy of a Site Investigation Report conducted by Environmental Waste Management Associates, Inc. ("EWMA"), dated October 26, 1992 which is attached as Exhibit 2. This report does not state the reasons why EWMA was retained to critique the Dunn Report, but they appear to have been

retained by both parties to the transaction to conduct such an analysis and further investigations, if warranted.

Respondent contacted a representative of EWMA and requested a copy of their file on the project. EWMA reported that they did not have any other information on the Premises. EWMA further stated that they do not believe that they conducted any further work on the Premises.

Respondent then engaged the services of Orion Environmental Solutions, Inc., to search the applicable databases to determine the status of Case # 92-04-16-1250-21. The Leaking Petroleum Storage Tank Database (LUST) indicated that a no further action letter dated September 30, 1994 was issued in this case. This report is attached as Exhibit 3.

Respondents: David H. Patrick, Esq.
Operations Counsel
The Pepsi Bottling Group
(914) 767-7107

Mr. Kevin Orabone
Project Manager, EWMA
(973) 560-1400 extension 154

Dr. Dennis Hunter
Principal
Orion Environmental Solutions
(865) 577-7124

Mr. David Reger
Counsel
Bressler, Amory & Ross
(973) 514-1200

Documents: Exhibits 1, 2 & 3.

a. when such releases occurred;

Response: On April 16, 1992 the NJDEPE Environmental Action Hotline was notified by the counsel for Pepsi-Cola that soil contamination had been observed adjacent to the existing fuel oil UST, and the operator assigned Case # 92-04-16-1250-21 to the report. The concentrations of the contaminants found were below the applicable clean-up thresholds.

On May 7, 1992 the NJDEPE Environmental Action Hotline was notified by counsel for Pepsi-Cola that volatile organic contaminants had been detected in a groundwater sample collected from a monitoring well in the back-filled excavation of the two removed USTs. An operator assigned Case # 92-05-07-1755-36 to the report. It was later determined that the two suspected discharges resulted from the same UST system, as the term "UST system" is defined by NJDEPE. Consequently, the two case numbers were consolidated into case # 92-04-16-1250-21.

Respondent: David H. Patrick, Esq.
Documents: Exhibit 2.

b. **how the releases occurred;**

Response: None of the Environmental Reports discovered stated an opinion as to how the releases occurred nor did any of the parties contacted by phone know how the releases occurred.

Respondent: David H. Patrick, Esq.

Mr. Kevin Orabone
Project Manager, EWMA
(973) 560-1400 extension 154

Documents: Exhibits 1 & 2.

c. **the amount of each hazardous substances, pollutants, or contaminants so released (for substances contained in any sewage effluent from the Site, provide discharge monitoring reports or other data indicating discharge concentrations and loads, as available);**

Response: The groundwater and soil data summaries are included in both the Dunn and EWMA Reports. Please note; neither our files, or the files of the parties we were able to contact, contained the raw laboratory data.

Respondent: David H. Patrick, Esq.

Mr. Kevin Orabone
Project Manager, EWMA
(973) 560-1400 extension 154

Documents: Exhibits 1 & 2.

d. **where such releases occurred;**

Response: The location of the release and the sampling locations are depicted on the Site Map in the Dunn Report.

Respondent: David H. Patrick, Esq.
Documents: Exhibit 1.

e. **where such releases entered the Berry's Creek Study Area, if applicable;**

Response: None of the reports indicate a release to Berry's creek

Respondent: David H. Patrick, Esq.
Documents: Exhibits 1 & 2.

f. **the pathway by which such releases entered the Berry's Creek Study Area, including any storm sewers, pipes, or other conveyances discharging to a water body or wetland; or via surface runoff, groundwater discharge, or any spills, leaks, or disposal activities.**

Response: None of the reports indicate a release to Berry's creek

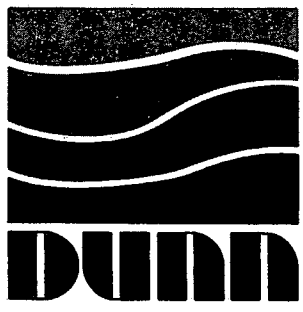
Respondent: David H. Patrick, Esq.
Documents: Exhibits 1 & 2.

EXHIBIT 1

PHASE II SITE ASSESSMENT REPORT

PEPSI-COLA EAST TETERBORO BOTTLING PLANT

Prepared for:
Pepsi-Cola Metropolitan Bottling Company
2 Empire Boulevard
Moonachie, New Jersey 07074



Albany, NY
Harrisburg, PA Buffalo, NY
Laconia, NH Atlanta, GA
Chicago, IL Parsippany, NJ

June, 1992

DUNN CORPORATION

Engineers, Geologists, Environmental Scientists
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PHASE II SITE ASSESSMENT REPORT

PEPSI-COLA EAST
TETERBORO BOTTLING PLANT

Prepared for:

Pepsi-Cola Metropolitan Bottling Company
2 Empire Boulevard
Moonachie, New Jersey 07074

Prepared by:

Dunn Corporation
35 Waterview Boulevard
Parsippany, New Jersey 07054

Date:

June, 1992

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1.0 INTRODUCTION

This report discusses the field work and findings for the Phase II Site Assessment of the former Pepsi Bottling Plant in Teterboro, New Jersey. The report has been prepared by Dunn Corporation (DUNN) on behalf of Pepsi-Cola Metropolitan Bottling Company (Pepsi) and Harco Industries (Harco). Pepsi and Harco are in negotiations to sell the Pepsi Bottling facility to Harco.

1.1 Background

The Pepsi Bottling Plant (Site) is located at 350 North Street in the City of Teterboro, Bergen County, New Jersey (Figure 1). The Site is owned by Pepsi-Cola Metropolitan Bottling Company. From the early 1950's until April 4, 1992, the facility was used for the bottling of Pepsi-Cola soft drink products. At the beginning of April, Pepsi moved its bottling operations to a new facility.

In February 1992, an environmental audit was requested by Harco because of a pending purchase of the Pepsi-Cola property. The audit, performed by Environmental Strategies and Applications, Inc. (ESA), identified areas of potential environmental concern relating to the on-site operations, including, but not limited to, the storage, handling, and disposal of hazardous materials, past site operations, and visual environmental concerns. A review of available information maintained by the local, state, and federal regulatory agencies was also performed to assist in identifying and evaluating current and/or historical environmental concerns with respect to the site and surrounding area. The report for the Phase I Site Assessment (SA) recommended additional investigation of the following locations at the Site:

- the fuel oil underground storage tank (UST) area,
- the fuel oil tank vent line,
- the suspect UST area adjacent to fuel oil UST,
- the loading dock,
- the former motor oil UST area,
- the southern property line adjacent to the railroad tracks,
- the exterior drum storage area, and
- the building sumps.

ESA also recommended evaluation of a soil sample from an on-site area that could be documented as unaffected by site operations as a background sample.

As a condition of the Contract of Sale, Pepsi agreed to implement an intrusive study of the areas identified in the Phase I SA. In April, 1992 Pepsi retained DUNN to conduct the field investigation at the Site. This Phase II SA report has been prepared by DUNN to document the findings of the field investigation.

Two phone calls to the New Jersey Department of Environmental Protection and Energy's (NJDEPE's) hotline to report suspected discharges to the environment have been made by the Counsel representing Pepsi (1992 and 1992). These reports have been assigned numbers and . To date, DUNN is not aware of any NJDEPE action pursuant to these notifications.

2.0 SITE CHARACTERIZATION

The Site consists of a one story building and paved parking areas. Several small areas of grass are present at the front of the building. The general setting of the area is commercial/industrial. Warehousing operations, a computer manufacturer, and a Ford plant are located in the immediate vicinity of the facility. A new building is under construction on the adjacent property east of the Site.

The topography of the Site is generally flat. Runoff from the Site is to storm sewers on North Street and to a drainage ditch along the southern property line. The drainage ditch is probably a tributary to the Hackensack River, which is located approximately 1 mile east of the Site.

3.0 FIELD INVESTIGATION

3.1 Soil Borings and Soil Sampling

Twenty-three soil borings (B-1 through B-23) were installed as part of the Phase II investigation. The locations of the borings are shown on the Site Map (Figure 2). The drilling was performed by a New Jersey certified driller from the Summit Drilling Company of Bridgewater, New Jersey, under the observation of a hydrogeologist from DUNN. The soil borings were performed on April 3 and 6, 1992.

The borings were installed with the use of hollow-stem auger drilling techniques. During drilling, continuous 2-inch or 3-inch O.D. split-spoons were driven every 2 feet in advance of the augers. All split-spoon samples were logged by a DUNN hydrogeologist at the time of collection. Boring logs are included in Appendix A and a discussion of the Site stratigraphy is presented in section 4.2.

At fifteen of the boring locations, soil samples were collected for laboratory analyses. The soil samples were collected from the split-spoons using laboratory-cleaned stainless steel spoons and were placed in glass jars supplied by the laboratory. The depths at which the samples were collected are shown on the boring logs in Appendix A. In accordance with NJDEPE field sampling protocol, the samples were preserved on ice from the time of collection until receipt at the laboratory. All laboratory analyses were performed by Envirotech Research (NJ Certification No. 12543) of Edison, New Jersey.

Analytical results for the soil have been summarized and are presented in Tables 1, 2, and 3. The complete laboratory reports, including the QA/QC data is contained within Appendix B.

Split-spoon samplers were cleaned between each use according to the following decontamination procedure:

- alconox and water scrub;
- potable water rinse;
- deionized water rinse;
- methanol rinse;
- deionized water rinse; and
- total air dry.

3.1.1 Fuel Oil UST Area

Six soil borings, designated B-10 through B-15, were installed around the perimeter of the No. 2 fuel oil UST located at the front of the building (Figure 2). Soil samples for laboratory analysis were collected from each of the borings. The samples were generally collected at a depth of 2.5 to 3 feet belowgrade, immediately above the observed water table. Each soil sample was analyzed for total petroleum hydrocarbons (TPHs). The sample from B-10 was also analyzed for volatile organic compound plus a forward library search (VOC+15).

3.1.2 Fuel Oil UST Vent Line

One soil boring, B-16, was installed in the vicinity of the fuel oil tank vent line (Figure 2). One soil sample was collected from the boring at a depth of 2 to 2.5 feet belowgrade. The sample was analyzed for TPHs.

3.1.3 Suspected UST Area

An UST was suspected by ESA to exist immediately to the east of the fuel oil UST. Two soil borings, B-8 and B-9, were installed in this area. Both borings encountered only shallow fill deposits underlain by clay (See section 4.2)Soil samples were collected from the 2.5 to 3-foot and 3 to 3.5-foot depth intervals of B-8 and B-9, respectively. Both samples were analyzed for TPHs.

3.1.4 Loading Dock

An attempt was made to collect a soil sample from beneath the catch basin at the deep end of the loading dock on the southwest corner of the building. An 18-inch deep hole was jackhammered into the concrete, but no soil was encountered. The concrete was in excellent condition and no subsurface staining was observed. The hole was patched with concrete provided by the driller.

As an alternative to collecting soil from directly beneath the catch basin, two soil borings, B-18 and B-19, were installed around the edge of the loading dock (Figure 2). The soil from both borings had no unusual staining or odors. A soil sample from the 2 to 2.5-foot depth interval of B-18 was collected and analyzed for TPHs.

3.1.5 Former Motor Fuel UST Area

Eight soil borings, B-1 through B-7 and MW-1, were installed in the process of locating the former motor fuel UST area. Borings B-1 through B-7 encountered only shallow fill deposits underlain by clay (See section 4.2), suggesting that an UST was not located in this area. For the boring at MW-1, gravel and brick fill were encountered to a depth of 9 feet. Also, an oily sheen was observed on the water and soil at this location.

Four additional borings, designated B-20 through B-23, were installed around the perimeter of the former UST area. Soil samples were collected from 2 to 2.5 feet belowgrade at each of these locations. The samples were analyzed for TPHs, lead, and VOCs+15.

3.1.6 Exterior Drum Storage Area

Two soil samples were collected beneath the surface-stained asphalt in the exterior drum storage area on the east side of the building. The sampling locations are shown as S-4 and S-5 on Figure 2. The samples were collected at 2 to 2.5-feet belowgrade using dedicated 2-inch diameter stainless steel hand augers. The samples were analyzed for TPHs.

3.1.7 Southern Property Line

Three soil samples were collected along the north bank of the drainage ditch that parallels the railroad tracks and fence line. The sample locations are shown as S-1 through S-3 on Figure 2. The samples were collected from 0 to 0.5 feet belowgrade using stainless steel teaspoons. The samples were analyzed for pesticides and PCBs.

3.1.8 Background

Soil boring B-17 was installed along the western fence line to evaluate the Site background soil quality. Ken Taylor, Pepsi's maintenance supervisor, indicated that this location was only impacted by car and truck traffic. Two soil samples were collected from the boring, one at a depth of 1.5 to 2-feet and the other at 3 to 3.5-feet belowgrade. The shallow sample was analyzed for Pesticides/PCBs and PHCs. The sample collected from the deeper interval was analyzed for lead, TPHs, VOCs+15, and base/neutral extractables plus a forward library search (B/NEs+15).

3.2 Monitoring Well Installation, Development, and Sampling

One monitoring well, MW-1, was installed in the former motor fuel UST area. The drilling and well installation were performed by a New Jersey certified driller from the Summit Drilling Company of Bridgewater, New Jersey, under the observation of a hydrogeologist from DUNN. The well (Permit No. 26-29098) was installed on April 3, 1992.

Monitoring well MW-1 was completed according to NJDEPE specifications for a well in unconsolidated formations. The well was constructed of 4-inch diameter, schedule 40 PVC riser pipe and screen. The screen length was 7 feet and extended 1 foot above the observed water table. The 0.010-inch slot screen was capped at the bottom and joined above with a flush threaded riser pipe. Once the PVC screen and riser were lowered into the borehole, a sand pack was set by filling the annulus around the well assembly with #1 sand to approximately one foot above the top of the screen. A bentonite pellet

seal, approximately 0.5 foot thick, was placed on top of the sand pack. The annulus was then sealed from approximately 1 foot belowgrade to the ground surface with a bentonite-cement grout. The well was completed with a flush-to-the-ground protective vault.

The monitoring well was installed using equipment which was steam cleaned prior to starting the borehole. The field data collected during drilling is presented on the boring log for MW-1 in Appendix A. The boring and well completion log was generated to document the geologic conditions and monitoring well construction.

The monitoring well was developed shortly after installation by removing approximately three well volumes of water using an above-grade jet pump, dedicated polyethylene tubing, and a foot valve. Development water was containerized in a 55-gallon drum. Development was terminated when turbidity measurements stabilized.

Groundwater samples were collected from the monitoring well on April 15 and May 18, 1992 by a qualified DUNN hydrogeologist. Sampling of the groundwater was conducted in a manner consistent with those recommendations set forth in the NJDEPE's Field Procedures Manual. The static water level was measured to the nearest 0.01 of a foot prior to purging. Three volumes of water were then purged from the well using an above-grade jet pump and polyethylene tubing, and a PVC footvalve. Conductivity, temperature, and pH were monitored during the purging of the well. After these field parameters had stabilized, water samples for laboratory analysis were collected with a field dedicated Teflon bailer. The groundwater samples collected from the well were placed in laboratory-supplied bottles and stored on ice in a cooler awaiting shipment. A chain-of-custody form was completed at the Site and transmitted with the samples to the laboratory.

The groundwater samples were analyzed for volatile organic compounds (VOCs+15), base/neutral compounds (B/NEs+15), TPHs, and lead. During the second round of sampling, a field blank was also collected and analyzed for VOC+15, B/NE+15, TPHs, and lead. A trip blank accompanied each shipment of samples and was analyzed for VOCs+15. Envirotech Research Inc. (Certification No. 12543) of Edison, New Jersey provided laboratory analytical services. Analytical results for the groundwater and QA/QC samples have been summarized and are presented in Table 4. The complete laboratory reports, including the QA/QC data are contained within Appendix C.

3.3 Building Sumps

On April 17, 1992, DUNN visually inspected the loading dock and building overflow sumps to evaluate their integrity. In addition, photographs were taken to document the condition of the sumps. The loading dock sump is a cast-in-place concrete vault, 3 feet by 3 feet by 6 feet deep. The sump is used to collect rainwater from the loading dock drain. The water from the sump is discharged to the storm water sewer using a sump pump. The overflow sump, located near the former soft drink bottling area, was used to collect overflow and backwash water from process operations. It is a 3 cubic foot

4.0 FINDINGS

4.1 Regional Geology

The Teterboro area is mapped as Pleistocene Age unconsolidated deposits overlying the Triassic Age Passaic Formation (formerly Brunswick Shale). The Pleistocene deposits are estimated to range in thickness from 60 to 100 feet.

4.2 Site Stratigraphy

A classification of soils at the Site was developed based on visual observation of the soil samples collected during drilling. The soil classification system used at the Site is a modification of the system developed by D. M. Burmeister. Boring logs for the soil borings and monitoring well installed can be found in Appendix A.

The two geologic units encountered at the Site were fill material and lacustrine deposits. The fill material was the uppermost unit encountered at each of the boring locations and consists of brown fine to coarse sand with some gravel and brick fragments interspersed. This unit extends from just beneath the paved asphalt surface to a depth of approximately 2.5 feet belowgrade. In the former motor fuel oil UST area, the fill extends to a depth of 9 feet.

The fill material at each boring location is underlain by glaciolacustrine deposits. These deposits consist of varved gray clays and silts. The unit is generally found at depths greater than 2.5 feet. The total thickness of the unit is not known.

4.3 Groundwater Occurrence

Groundwater at the Site is found within the fill material. The depth to groundwater, as measured at monitoring well MW-1, is approximately 1 foot below grade. The groundwater flow direction is believed to be to the south, toward the drainage ditch along the southern property line. No other shallow monitoring wells exist on-site to confirm this conjecture.

An on-site groundwater production well used for Pepsi's production processes is screened within the Passaic formation. Water quality and well completion information for this well were not available for review as part of this study.

4.4 Soil Quality

The analytical results for the soil samples collected at the Site are summarized in Tables 1, 2, and 3. The complete set of laboratory reports are presented in Appendix B.

4.4.1 Fuel Oil UST Area

The concentrations of TPHs in five of the six soil samples collected around the perimeter of the fuel oil UST were below the minimum quantification limit (See Table 1). The TPH concentration of the sixth sample, collected at B-10, was 5500 mg/Kg. Because this sample exceeded the 1000 mg/Kg action level agreed upon by DUNN and Pepsi, this sample was also analyzed for VOCs+15. The sample was found to contain four targeted VOCS: ethyl benzene (0.013 mg/Kg), tetrachloroethene (0.018 mg/Kg), toluene (0.046 mg/Kg), and xylenes (0.010 mg/Kg). The total concentration of these compounds was 0.087 mg/Kg. Several tentatively identified compounds, with a total concentration of 5.914 mg/Kg, were also found.

The NJDEPE's proposed action level for total organics including TPHs in soil is 10,000 mg/Kg. The soil sample from B-10 was well below this threshold. The proposed action levels for ethyl benzene, tetrachloroethene, toluene, and xylenes (total) in soil are 100, 1, 500, and 10 mg/Kg, respectively. The proposed action level for total VOCs in an area with no subsurface structures, e.g. sewers, basements, etc., is 1,000 mg/Kg (In an area where subsurface structures are present, the proposed standard is 100 mg/Kg). The concentrations of the targeted individual compounds as well as total VOCs in the soil sample from B-10 are all at least two orders of magnitude less than these action levels.

4.4.2 Fuel Oil UST Vent Line

The soil sample from boring B-16, near the fuel oil UST vent line, was analyzed for TPHs (See Table 1). The concentration of TPHs was found to be 3,150 mg/Kg, well below the NJDEPE's proposed action level of 10,000 mg/Kg.

4.4.3 Suspected UST Area

The two samples collected from borings B-8 and B-9 in the suspected UST area were analyzed for TPHs (See Table 1). The concentrations of TPHs were below the minimum quantification limits for both samples.

4.4.4 Loading Dock

In the loading dock area, one soil sample was collected from boring B-18 and was analyzed for TPHs (See Table 3). The TPH concentration was below the minimum quantification limit (BMQL).

4.4.5 Former Motor Fuel UST Area

Four soil borings, B-20 through B-23, were installed around the perimeter of the former motor fuel UST area. A soil sample was collected from each of these borings and was analyzed for TPHs, lead, and VOCs+15. Also, an additional sample was collected at B-

23 as a duplicate. This sample was analyzed for the same parameter as the other samples collected in this area.

At borings B-21, B-22, and B-23, the TPH concentrations were 1,300, 316, and 1,820 mg/Kg, respectively. At B-20 the TPH concentration was BMQL. These concentrations are all below the NJDEPE's proposed action level of 10,000 mg/Kg.

Lead was present in the samples from all four locations and ranged in concentration from 15 to 45 mg/Kg. All of these values are below the proposed 100 mg/Kg standard for residential surface soil.

Three targeted volatile organic compounds, tetrachloroethene (0.013 mg/Kg), toluene (0.012 mg/Kg), and xylenes (0.016 mg/Kg), were detected in the sample from B-21. Ethylbenzene (3.2 mg/Kg) and toluene (0.43 mg/Kg) were found in the sample from B-23. All of these individual targeted VOC concentrations are below their respective proposed NJDEPE cleanup standard. The samples from B-21 and B-23 also contained non-targeted VOCs with total concentrations of 1.66 mg/Kg and 411.2 mg/Kg, respectively. The total concentration of VOCs at B-21 are below the NJDEPE's proposed action levels. The total VOCs at B-23 are below the action level of 1,000 mg/Kg in an area with no subsurface structures.

Samples from borings B-20 and B-22 were non-detect for VOCs.

4.4.6 Exterior Drum Storage Area

Samples S-4 and S-5 from the drum storage area were analyzed for TPHs. Both samples were non-detect.

4.4.7 Southern Property Line

The three surface soil samples, S-1 through S-3, collected along the southern property line were analyzed for pesticides and PCBs. At S-2 a duplicate sample was also collected and analyzed. The samples from S-2 and S-3 were BMQL. At location S-1, 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT were present in concentrations of 0.18 mg/Kg, 0.14 mg/Kg, and 0.39 mg/Kg, respectively. The proposed residential surface soil standards are 3 mg/kg for 4,4'-DDD, 2 mg/Kg for 4,4'-DDE, and 2 mg/kg for 4,4'-DDT. The levels of these contaminants detected at S-1 are all below the proposed standards.

4.4.8 Background

The soil sample collected from the 1.5 to 2 foot interval in background boring B-17 was analyzed for pesticides/PCBs and TPHs. The concentrations of these two parameters were BMQL.

A soil sample was collected from the 3 to 3.5 foot depth interval of B-17 was analyzed for lead, TPHs, VOCs+15, and B/NEs+15. A duplicated sample from this interval was also analyzed for B/NEs+15. The concentrations of lead, TPHs, and VOCs were BMQL. Two targeted B/NEs, fluoranthene and pyrene, were detected at concentrations of 0.0082 mg/Kg and 0.0056 mg/Kg, respectively. These values are several orders of magnitude below the proposed standard of 500 mg/Kg for both fluoranthene and pyrene. The total concentration of targeted and non-targeted B/NEs in the sample was 1.72 mg/Kg. This total is also well below the proposed standard of 10,000 mg/Kg.

4.5 Groundwater Quality

The groundwater analytical results from the two sampling events are summarized in Table 4. The complete set of laboratory reports are contained within Appendix C.

The maximum concentration of lead in the groundwater was 16 ug/L. Total petroleum hydrocarbons were found at a concentration of 1.9 mg/L. The total VOC concentration in the groundwater, including tentatively identified compounds (TICs), was 2.01 mg/L. The total B/NE concentration, including TICs, was 1.23 mg/L.

The groundwater standard for an individual organic contaminant in a Class II-B aquifer[1] is 1 mg/l. None of the contaminants detected in the groundwater at MW-1 exceed this limit. The cleanup standard for the total of all organic contaminants in a Class II-B aquifer is 10 mg/L. The maximum combined concentration of TPHs, VOCs, and B/NEs in the groundwater at MW-1 is 5.14 mg/L, well below the proposed cleanup standard of 10 mg/L for the total of all organic contaminants. A comparison of data from MW-1 to the proposed water quality standards for a Class II-B aquifer is made because the "Preliminary Draft of Proposed Class II-B Ground Water Quality Standards" (May 3, 1991) listed Teterboro as a municipality with a Class II-B water table aquifer rating. DUNN has not independently confirmed the basis used by NJDEPE in initially establishing this classification for Teterboro. The NJDEPE must agree with the designation and, therefore, this evaluation is subject to NJDEPE review and approval. Benzene, chlorobenzene, and xylenes exceed their corresponding groundwater quality standards if the groundwater at the Site is classified as a II-A aquifer[2].

The field blank collected on May 18 contained B/NE compounds with a total concentration of 66 ug/L. Naphthalene was detected in both the field blank and the groundwater sample collected on that date. A small quantity of naphthalene (0.57 ug/L) was detected but would not account for the concentration of naphthalene found in the groundwater sample (45 ug/L).

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[1] Class II-B aquifers are ground waters used for purposes other than potable consumption. In general, a Class II-B aquifer exceeds of one or more of the ground water quality criteria in N.J.A.C. 7:9-6.7(c).

[2] Class II-A aquifers are ground waters used for potable, agricultural, and industrial purposes. The water may require conventional treatment such as mixing, filtration or chlorination.

4.6 Building Sumps

The visual inspection of the loading dock and overflow sumps revealed that the concrete vaults are in good condition with no apparent cracks. Based on this inspection plus the observed contents of the sumps, it is unlikely that the soil and groundwater beneath these structures have been adversely impacted.

Based upon the field investigations and analytical results as well as the proposed cleanup standards (NJDEPE - February, 1992), DUNN recommends no additional investigation of the soil and groundwater at other locations at the Teterboro Site.

Furthermore, because none of the samples collected during this investigation exceed the NJDEPE's proposed soil and groundwater cleanup standards, neither soil nor ground water remediation is suggested at this time.

This recommendation is subject to change following promulgation of final cleanup regulations. Following review of this report, NJDEPE may agree with our findings and recommendations or they may not. This is beyond DUNN's control. DUNN has not rendered a legal interpretation of compliance or non-compliance with the proposed regulations. The findings in this report are based solely on a technical comparison of data to proposed standards.

d:\data\rkm\pepsa.doc
90138-00237
June, 1992

TABLES

TABLE 1: ANALYTICAL SUMMARY, SOIL - PEPSI COLA BOTTLING PLANT - TETERBORO, NEW JERSEY - APRIL, 1992
FUEL OIL UST AND VENT LINE AREA - TOTAL PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS

LOCATION NO.	B-8	B-9	B-10	B-11	B-11-DUP	B-12	B-13	B-14	B-15	B-16
SAMPLE DEPTH INTERVAL	2.5-3'	2-3.5'	1.5-2'	2.5-3'	2.5-3'	3-3.5'	2.5-3'	2.5-3'	2.5-3'	2-2.5'
DUNN SAMPLE NO.	201007	201008	201015	201016	201017	201018	201019	201020	201021	201022
LAB SAMPLE NO.	65423	65424	65425	65426	65427	65428	65429	65430	65431	65432
DATE SAMPLED	4/6/92	4/6/92	4/6/92	4/6/92	4/6/92	4/6/92	4/6/92	4/6/92	4/6/92	4/6/92
Total Petroleum Hydrocarbons (mg/Kg)	BMQL	BMQL	5500	BMQL	BMQL	BMQL	BMQL	BMQL	BMQL	3150
Volatile Organics (ug/Kg)										
Ethyl benzene	NT	NT	13 J	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethene	NT	NT	18 J	NT	NT	NT	NT	NT	NT	NT
Toluene	NT	NT	46	NT	NT	NT	NT	NT	NT	NT
Xylenes (Total)	NT	NT	10 J	NT	NT	NT	NT	NT	NT	NT
Tentatively Identified Compounds										
C9H18 Hydrocarbon	NT	NT	130	NT	NT	NT	NT	NT	NT	NT
C10H20 Hydrocarbon	NT	NT	150	NT	NT	NT	NT	NT	NT	NT
2,3-dihydro-1H Indene	NT	NT	630	NT	NT	NT	NT	NT	NT	NT
C10H20 Cycloalkane	NT	NT	230	NT	NT	NT	NT	NT	NT	NT
2,3-dihydro-methyl-1H Indene Isomer	NT	NT	490	NT	NT	NT	NT	NT	NT	NT
1,2,3,4-tetrahydronaphthalene	NT	NT	550	NT	NT	NT	NT	NT	NT	NT
Ethyldimethlybenzene Isomer	NT	NT	1700	NT	NT	NT	NT	NT	NT	NT
2,3-dihydro-methyl-1H Indene Isomer	NT	NT	1200	NT	NT	NT	NT	NT	NT	NT
Unknowns	NT	NT	934	NT	NT	NT	NT	NT	NT	NT
Summary (ug/Kg)										
Total Targeted VOCs			87							
Total Non-Targeted VOCs			5914							
Total VOCs			6001							

NOTES:

J = Estimated value below method detection limit
NT = Not tested
BMQL = Below Minimum Quantification Limit

TABLE 2: ANALYTICAL SUMMARY, SOIL - PEPSI COLA BOTTLING PLANT - TETERBORO, NEW JERSEY - APRIL, 1992
FORMER MOTOR OIL UST AREA - TOTAL PETROLEUM HYDROCARBONS, VOLATILE ORGANIC, AND LEAD

LOCATION NO.	B-20	B-21	B-22	B-23	B-23-DUP
SAMPLE DEPTH INTERVAL	2-2.5'	2-2.5'	2-2.5'	2-2.5'	2-2.5'
DUNN SAMPLE NO.	201005	201006	201026	201027	201028
LAB SAMPLE NO.	65421	65422	65435	65436	65427
DATE SAMPLED	4/6/92	4/6/92	4/6/92	4/6/92	4/6/92
Total Petroleum Hydrocarbons (mg/Kg)	BMQL	1300	316	1820	BMQL
Lead (mg/Kg)	36	34	31	45	15
Volatile Organics (ug/Kg)					
Ethyl benzene	BMQL	BMQL	BMQL	1700	3200
Tetrachloroethene	BMQL	13 J	BMQL	BMQL	BMQL
Toluene	BMQL	12 J	BMQL	430 J	BMQL
Xylenes (Total)	BMQL	16 J	BMQL	BMQL	BMQL
Tentatively Identified Compounds					
methylcyclohexane	BMQL	BMQL	BMQL	3300	10000
3-methylhexane	BMQL	BMQL	BMQL	8400	15000
2-methylhexane	BMQL	BMQL	BMQL	4600	9200
Unknown Alkane	BMQL	BMQL	BMQL	41000	107000
5,5-dimethyl-1-hexane	BMQL	66	BMQL	BMQL	BMQL
Unknown cycloalkane	BMQL	BMQL	BMQL	6300	BMQL
2-methylheptane	BMQL	BMQL	BMQL	9300	15000
C9H18 hydrocarbon	BMQL	64	BMQL	BMQL	BMQL
C9H18 cycloalkane	BMQL	BMQL	BMQL	9400	BMQL
Propylbenzene/co-eluting unknown alkane	BMQL	BMQL	BMQL	BMQL	22000
Propylbenzene	BMQL	BMQL	BMQL	13000	BMQL
3-methyloctane	BMQL	BMQL	BMQL	10000	19000
2-methyloctane	BMQL	BMQL	BMQL	10000	BMQL
2,3-dihydro-1H Indene	BMQL	160	BMQL	15000	22000
Ethylmethylbenzene isomer	BMQL	160	BMQL	BMQL	BMQL
2,3-dihydro-methyl-1H Indene isomer/co-eluting unkn	BMQL	BMQL	BMQL	35000	70000
2,3-dihydro-methyl-1H Indene isomer	BMQL	550	BMQL	BMQL	BMQL
Trimethylbenzene isomer	BMQL	420	BMQL	BMQL	BMQL
2,3-dihydro-methyl-1H Indene isomer/co-eluting unknown alkane	BMQL	BMQL	BMQL	BMQL	22000
Ethyldimethylbenzene isomer	BMQL	BMQL	BMQL	70000	100000
Unknown	BMQL	237	BMQL	BMQL	BMQL
Summary (ug/Kg)					
Total Targeted VOCs	BMQL	41	BMQL	2130	3200
Total Non-Targeted VOCs	BMQL	1657	BMQL	235300	411200
Total VOCs	BMQL	1698	BMQL	237430	414400

NOTES:

J = Estimated value below method detection limit
NT = Not tested
BMQL = Below Minimum Quantification Limit

TABLE 3: ANALYTICAL SUMMARY, SOIL - PEPSI COLA BOTTLING PLANT - TETERBORO, NEW JERSEY - APRIL, 1992
SOUTHERN PROPERTY LINE, EXTERIOR DRUM STORAGE AREA, LOADING DOCK, BACKGROUND

LOCATION	Southern Property Line				Drum Storage Area		Background			Loading Dock
LOCATION NO.	S-1	S-2	S-2-DUP	S-3	S-4	S-5	B-17	B-17	B-17-DUP	B-18
SAMPLE DEPTH INTERVAL	0-0.5'	0-0.5'	0-0.5'	0-0.5'	2-2.5'	2-2.5'	1.5-2'	3-3.5'	3-3.5'	2.5-3'
DUNN SAMPLE NO.	201011	201012	201013	201014	201010	201009	201023	201004	201029	201024
LAB SAMPLE NO.	65401	65402	65403	65404	65400	65399	65433	65427	65438	65434
DATE SAMPLED	4/3/92	4/3/92	4/3/92	4/3/92	4/3/92	4/3/92	4/6/92	4/6/92	4/6/92	4/6/92
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	180	BMQL	BMQL	BMQL	NT	NT	BMQL	NT	NT	NT
4,4'-DDE	140	BMQL	BMQL	BMQL	NT	NT	BMQL	NT	NT	NT
4,4'-DDT	390	BMQL	BMQL	BMQL	NT	NT	BMQL	NT	NT	NT
Lead (mg/kg)	NT	NT	NT	NT	NT	NT	NT	BMQL	NT	NT
Total Petroleum Hydrocarbons (mg/Kg)	NT	NT	NT	NT	BMQL	BMQL	BMQL	BMQL	NT	BMQL
Volatile Organics (ug/Kg)	NT	NT	NT	NT	NT	NT	NT	BMQL	NT	NT
Base Neutrals (ug/Kg)										
Fluoranthene	NT	NT	NT	NT	NT	NT	NT	8.2 J	BMQL	NT
Pyrene	NT	NT	NT	NT	NT	NT	NT	6.6 J	BMQL	NT
Tentatively Identified Compounds										
Hexadecanoic Acid	NT	NT	NT	NT	NT	NT	NT	320	BMQL	NT
Unknown Aldehyde	NT	NT	NT	NT	NT	NT	NT	480	BMQL	NT
Unknowns	NT	NT	NT	NT	NT	NT	NT	910	BMQL	NT
Summary (ug/Kg)										
Total Targeted B/NEs								13.8		
Total Non-Targeted B/NEs								1710		
Total B/NEs								1724		

NOTES:

J = Estimated value below method detection limit
NT = Not tested
BMQL = Below Minimum Quantification Limit

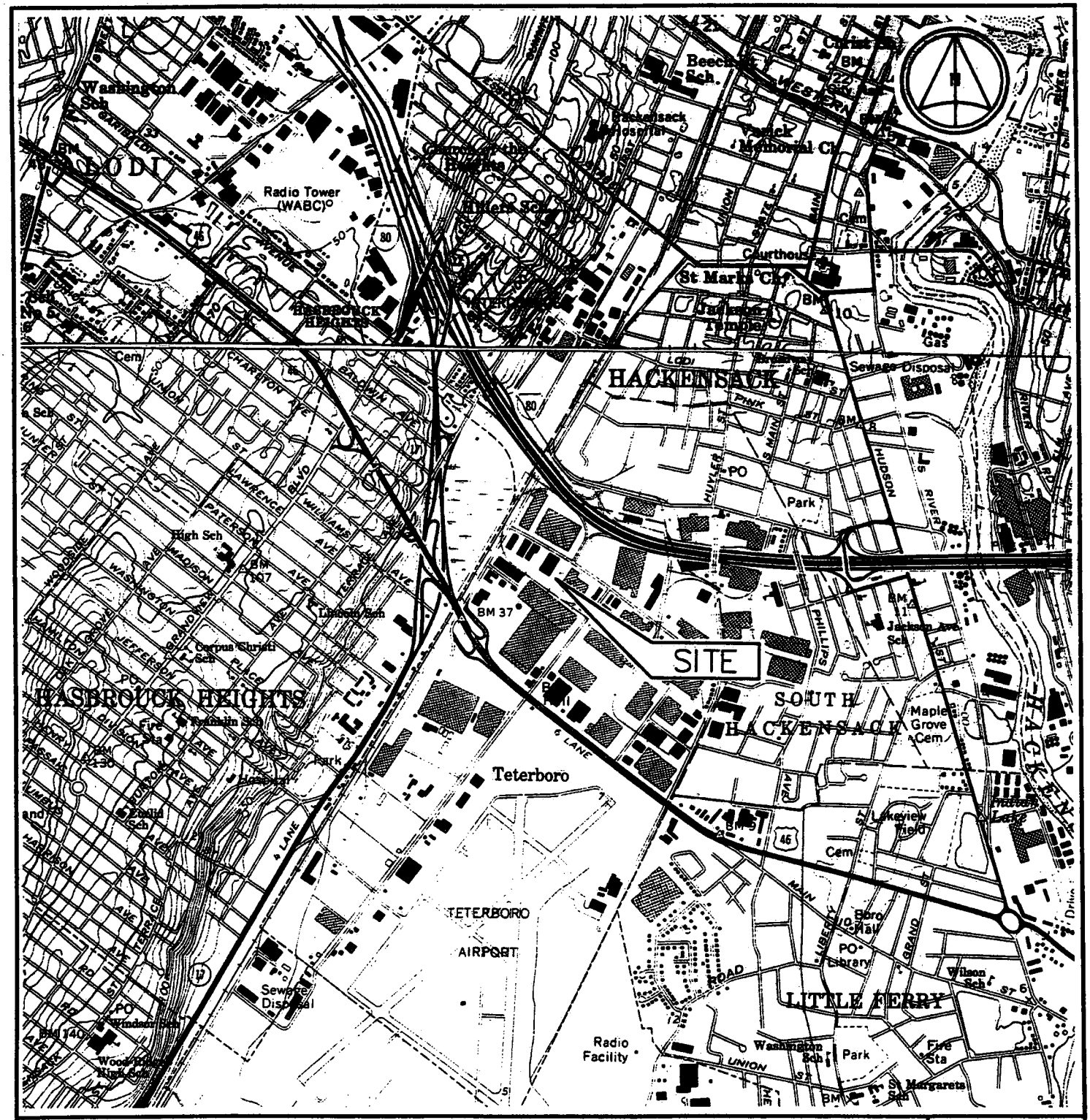
TABLE 4: ANALYTICAL SUMMARY, WATER - PEPSI COLA BOTTLING PLANT
TETERBORO, NEW JERSEY - APRIL 15 AND MAY 18, 1992
FORMER MOTOR OIL UST AREA

LOCATION NO.	MW-1	MW-1	MW-1-DUP	FIELD BLANK	TRIP BLANK	TRIP BLANK
DUNN SAMPLE NO.	102001	103001	102002	103002	Trip Blank	Trip Blank
LAB SAMPLE NO.	65741	67490	65742	67491	65743	67492
DATE SAMPLED	4/15/92	5/18/92	4/15/92	5/18/92	4/15/92	5/18/92
Total Petroleum Hydrocarbons (mg/L)	1.9	1.3	1.8	BMQL	NT	NT
Lead (ug/L)	16	11	16	BMQL	NT	NT
Volatile Organics (ug/L)						
Benzene	880	780	880	BMQL	BMQL	BMQL
Chlorobenzene	14 J	14 J	13 J	BMQL	BMQL	BMQL
Ethyl Benzene	77	98	82	BMQL	BMQL	BMQL
Toluene	27 J	25 J	25 J	BMQL	BMQL	BMQL
Xylenes (Total)	84	100	100	BMQL	BMQL	BMQL
Tentatively Identified Compounds						
C5H10 Hydrocarbon	72	59	58	BMQL	BMQL	BMQL
Methylcyclopentane	120	98	89	BMQL	BMQL	BMQL
C6H10 Hydrocarbon	66	61	63	BMQL	BMQL	BMQL
C7H12 Hydrocarbon	BMQL	65	BMQL	BMQL	BMQL	BMQL
2,3-Dihydro-1H-Indene	420	280	200	BMQL	BMQL	BMQL
Ethylmethylbenzene Isomer	BMQL	70	BMQL	BMQL	BMQL	BMQL
Trimethylbenzene Isomer	BMQL	210	BMQL	BMQL	BMQL	BMQL
Unknown	BMQL	160	BMQL	BMQL	BMQL	BMQL
Summary (ug/L)						
Total Targeted VOCs	1082	1027	1050	0	0	0
Total Non-Targeted VOCs	678	983	410	0	0	0
Total VOCs	1760	2010	1460	0	0	0
Base Neutrals (ug/L)						
1,2-Dichlorobenzene	BMQL	2.5 J	BMQL	BMQL	NT	NT
Naphthalene	38	45	34	0.57 J	NT	NT
Acenaphthene	2.8 J	3.0 J	2.7 J	BMQL	NT	NT
Fluorene	3.4 J	4.5 J	3.3 J	BMQL	NT	NT
Phenanthrene	3.6 J	4.5 J	3.4 J	BMQL	NT	NT
Tentatively Identified Compounds						
Ethyl Benzene	BMQL	58	BMQL	BMQL	NT	NT
Xylene Isomer	119	71	102	BMQL	NT	NT
Trimethyl Benzene Isomer	179	189	156	BMQL	NT	NT
2,3-Dihydro-1H-Indene	190	190	160	BMQL	NT	NT
C10H14 Alkyl Benzene	BMQL	75	BMQL	BMQL	NT	NT
Tetramethyl Benzene Isomer	44	45	39	BMQL	NT	NT
2,3-Dihydro-Methyl-1H-Indene Isomer	134	178	125	BMQL	NT	NT
2,3-Dihydro-Dimethyl-1H-Indene Isomer	BMQL	40	BMQL	BMQL	NT	NT
Unknown Unsaturated Hydrocarbon	BMQL	42	BMQL	BMQL	NT	NT
2-Methyl Naphthalene	92	120	89	BMQL	NT	NT
1-Methyl Naphthalene	BMQL	77	BMQL	BMQL	NT	NT
2,3-Dihydro-Methyl-1H-Inden-1-one Isomer	34	BMQL	33	BMQL	NT	NT
1-Methyl Naphthalene	60	BMQL	58	BMQL	NT	NT
2,3-Dihydro-methyl-1H-Inden-1-one Isomer	38	BMQL	36	BMQL	NT	NT
Dimethyl Naphthalene Isomer	70	82	67	BMQL	NT	NT
Unknown Amide	BMQL	BMQL	BMQL	37	NT	NT
Unknowns	33	BMQL	33	28	NT	NT
Summary (ug/L)						
Total Targeted B/NEs	45.8	59.5	43.4	0.57		
Total Non-Targeted B/NEs	993	1167	898	65		
Total B/NEs	1039	1227	941	66		

NOTES:

J = Estimated value below method detection limit
NT = Not tested
BMQL = Below Minimum Quantification Limit

FIGURES



SOURCE:

USGS Weehawken, N.J.–N.Y. & Hackensack, N.J. (1981) 7.5 minute Quadrangle

Latitude: 40°52'00"
Longitude: 74°03'30"

Approximate scale 1" = 2,000'

DUNN CORPORATION
35 Waterview Boulevard
Parsippany, New Jersey 07054
Tel: 201/299-9001 Fax: 201/299-0021

SITE LOCATION MAP

PEPSI COLA BOTTLING WORKS

BOROUGH OF TETERBORO — BERGEN COUNTY, NJ

PROJ. MANAGER: J. DUNCAN	DRAFTED BY: M. BRUGGEMANN	PROJECT NO.: 90138-00237	DRAWING NO.: 9-00671
PREPARED BY: R. MARVIN	CHECKED BY:	FIGURE 1	DATE: 6/10/92

APPENDIX A

BORING LOGS AND WELL COMPLETION DIAGRAMS

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. 1-7
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/3/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE: CORE: CASING:	DATE FINISHED: *4/3/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* *N/A* *N/A*	DRILLER: *D.J. Grahamer*
GROUND SURFACE ELEVATION:	DIA.: *2 in.* *N/A* *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		09-08					**FILL**	
2		07-10					Brown, f-m SAND, moist.	
		09-12					**GLACIOLACUSTRINE**	
4		16-16					Gray CLAY, some silt, varved, red/pink mottling, moist.	
							@ 3.0 ft. becomes saturated.	
6							*Bottom of borehole @ 5.0 ft.*	
8							*∇ = Initial water level*	
							Borehole grouted and sealed.	
10							*This log describes the stratigraphy at locations B-1 through B-7.*	
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-8
PROJECT: *Teterboro*		**SHEET 1 of 1**
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		15-14					**FILL**	
2		11-12					Brown, f-m SAND, moist.	
	201007							▽
							GLACIOLACUSTRINE	
4							Gray CLAY, some silt, varved, red mottling, moist.	
6							@ 2.5 ft. becomes saturated.	
8							*Bottom of borehole @ 3.0 ft.*	
10							*▽ = Initial water level*	
12							*Borehole grouted and sealed.*	
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-9
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		xx-08					**FILL**	
2		10-45					Brown, f-m SAND, moist.	
	201008						**GLACIOLACUSTRINE**	▽
4							Gray CLAY, some silt, varved, red mottling, moist.	
6							@ 2.5 ft. becomes saturated.	
8							*Bottom of borehole @ 3.0 ft.*	
10							*▽ = Initial water level*	
12							*Borehole grouted and sealed.*	
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-10
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		08-10					**FILL**	
2	201015	09-RF					Brown, f-m SAND, moist.	
							GLACIOLACUSTRINE	
4							Gray CLAY, some silt, varved, red mottling, moist.	
							@ 2.5 ft. becomes saturated.	
6								
8							*Bottom of borehole @ 3.0 ft.*	
							▽ = Initial water level	
10							*Borehole grouted and sealed.*	
							Soil sample had hydrocarbon odor.	
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-11
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		14-18					**FILL**	
2	201016.17	19-21					Brown, f-m SAND, moist.	
		15-15					@ 1.8 ft. becomes saturated.	▽
4		18-21					**GLACIOLACUSTRINE**	
							Gray SILT and CLAY, varved, red mottling, moist.	
6								
8							*Bottom of borehole @ 5.0 ft.*	
							▽ = Initial water level	
10							*Borehole grouted and sealed.*	
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-12
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		08-13					**FILL**	
2		17-15					Brown, f-m SAND, moist.	
	201018	12-12					@ 1.8 ft. becomes saturated.	▽
4		12-12					**GLACIOLACUSTRINE**	
							Gray SILT and CLAY, little Sand, varved, red mottling, moist.	
6								
8							*Bottom of borehole @ 5.0 ft.*	
							▽ = Initial water level	
10							*Borehole grouted and sealed.*	
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-13
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
1		25-16					**FILL**	
2		10-10					Brown, m-c SAND, some silt, moist.	▽
2	201019						@ 1.9 feet becomes saturated.	
4								
6							*Bottom of borehole @ 3.0 ft.*	
8							*▽ = Initial water level*	
10							*Borehole grouted and sealed.*	
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-14
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
2	201020	09-13 10-11					**FILL** Brown, m-c SAND, some silt, moist. @ 2.0 feet becomes saturated.	▽
4							**GLACIOLACUSTRINE** Gray, SILT and CLAY, varved, moist.	
6								
8							*Bottom of borehole @ 3.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.*	
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021		TEST BORING LOG			Boring No. B-15
PROJECT: *Teterboro*					SHEET 1 of 1
CLIENT: *Pepsi*					JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*					DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*		SAMPLE	CORE	CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE	*SS*	*N/A*	*N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.	*3 in.*	*N/A*	*N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		11-09					**FILL**	
2		11-12					Brown, m-c SAND, some silt, moist.	▽
	201021						@ 2.0 feet becomes saturated.	
4							**GLACIOLACUSTRINE**	
							Gray, SILT and CLAY, varved, moist.	
6								
8							*Bottom of borehole @ 3.0 ft.*	
							▽ = Initial water level	
10							*Borehole grouted and sealed.*	
							Soil has strong hydrocarbon odor.	
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-16
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		10-13 15-15					**FILL** Brown, SILT and f-m SAND, moist.	
2	201022	07-11 13-11					**GLACIOLACUSTRINE** Gray, SILT and CLAY, varved, with Sand lenses, moist. @ 2.5 feet becomes saturated.	▽
4							*Bottom of borehole @ 4.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.* *Soil has strong hydrocarbon odor.*	
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-17
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		50-37					**ASPHALT**	
		24-14					**GLACIOLACUSTRINE**	
2	201023	13-15					Gray SILT and CLAY, little Sand, varved, red mottling, moist.	
	201004,29	17-15					@ 3 feet becomes saturated. ▽	
4								
6							*Bottom of borehole @ 4.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.*	
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021					TEST BORING LOG	Boring No. B-18
PROJECT: *Teterboro*						SHEET 1 of 1
CLIENT: *Pepsi*						JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*						DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*		SAMPLE	CORE	CASING		DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE	*SS*	*N/A*	*N/A*		DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.	*3 in.*	*N/A*	*N/A*		INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
2	201024	14-12 10-21					**FILL** Brown, m-c SAND, trace Gravel, moist. @ 2.4 feet becomes saturated.	▽
4							**GLACIOLACUSTRINE** Gray, SILT and CLAY, varved, moist.	
6							*Bottom of borehole @ 3.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.*	
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021		TEST BORING LOG			Boring No. B-19
PROJECT: *Teterboro*					SHEET 1 of 1
CLIENT: *Pepsi*					JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*					DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*		SAMPLE	CORE	CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE	*SS*	*N/A*	*N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.	*3 in.*	*N/A*	*N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
		xx-xx					**ASPHALT**	
		14-23					**FILL** Brown, m-c SAND, trace Gravel, moist.	
2		20-13						
		11-09						▽
4		21-23					**GLACIOLACUSTRINE** Gray, SILT and CLAY, varved, saturated.	
6								
8							*Bottom of borehole @ 5.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.*	
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-20
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		29-37					**FILL**	
2	201005	23-14					Dark brown, f-c SAND, some Gravel and Brick, moist.	▽
4							@ 2 feet becomes saturated.	
6							*Bottom of borehole @ 3.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.* *Soil has strong PHC odor.*	
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-21
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		13-11					**FILL**	
2	201006	09-07					Dark brown, f-c SAND, some Gravel and Brick, moist.	▽
4							@ 2 feet becomes saturated.	
6							*Bottom of borehole @ 3.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.* *Soil has strong PHC odor.*	
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-22
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		17-11					**FILL**	
2	201026	11-10					Dark brown, f-c SAND, some Gravel and Brick, moist.	▽
4							@ 2 feet becomes saturated.	
6							*Bottom of borehole @ 3.0 ft.* *▽ = Initial water level* *Borehole grouted and sealed.* *Soil has strong PHC odor.* *Sheen on water surface.*	
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

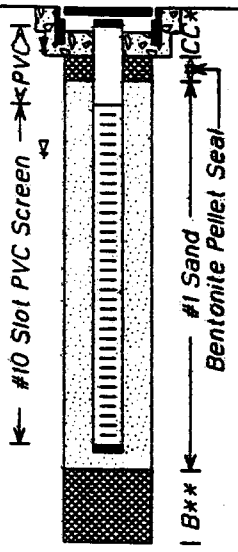
DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. B-23
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/6/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE / CORE / CASING	DATE FINISHED: *4/6/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* / *N/A* / *N/A*	DRILLER: *Sean Conolly*
GROUND SURFACE ELEVATION:	DIA.: *3 in.* / *N/A* / *N/A*	INSPECTOR: *R. Marvin*

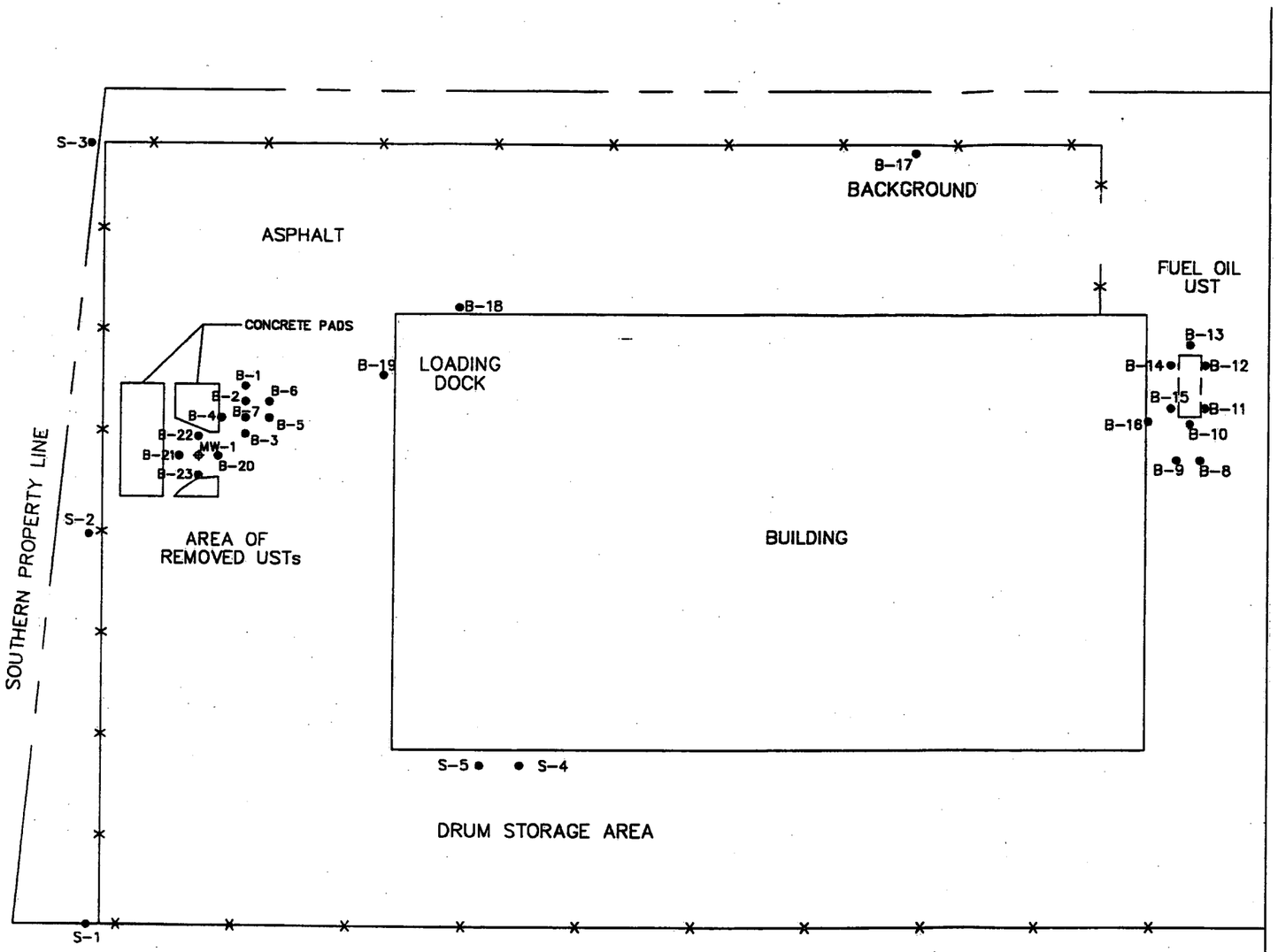
DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION	REMARKS
0		xx-xx					**ASPHALT**	
		16-11					**FILL**	
2	201027.28	11-09					Dark brown, f-c SAND, some Gravel and Brick, moist. ▽	
4							@ 2 feet becomes saturated.	
							Bottom of borehole @ 3.0 ft. *▽ = Initial water level* *Borehole grouted and sealed.* *Soil has strong PHC odor.*	
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DUNN CORPORATION 299 CHERRY HILL ROAD TEL: (201) 299-9001 PARSIPPANY, NJ 07054 FAX: (201) 299-0021	TEST BORING LOG	Boring No. MW-1
PROJECT: *Teterboro*		SHEET 1 of 1
CLIENT: *Pepsi*		JOB NUMBER: *90138-00237*
DRILLING CONTRACTOR: *Summit Drilling*		DATE STARTED: *4/3/92*
DRILLING METHOD: *Split Spoon with Hammer*	SAMPLE: CORE: CASING:	DATE FINISHED: *4/3/92*
DRILL RIG TYPE: *Mobile B-80*	TYPE: *SS* *N/A* *PVC*	DRILLER: *D.J. Grahamer*
GROUND SURFACE ELEVATION:	DIA.: *2 in.* *N/A* *4 in.*	INSPECTOR: *R. Marvin*

DEPTH (feet)	SAMPLE NUMBER	BLOWS PER 6 INCHES	PID (ppm) VALUES	PID (ppm) PROFILE 1 10 100	GRAPHIC LOG	USCS	GEOLOGIC DESCRIPTION
		xx-xx					**ASPHALT**
		08-10					**FILL** Red-brown, f-c SAND and GRAVEL, little Silt, moist.
2		13-20					
		02-02					
4		02-03					@ 3.0 ft. becomes saturated.
		100/3"					
6		xx-xx					
		01-02					
8		04-04					
		07-09					**GLACIOLACUSTRINE** Gray, CLAY and SILT, varved, saturated.
10		09-10					
12							
14							
16							*Bottom of borehole @ 11.0 ft.* *Top of PVC = -0.4 ft., Top of steel = +0.0 ft.* *▽ = initial wl; ▼ = static wl (4/7/92)* ** = concrete cap* ** = Bentonite Pellet Seal
18							
20							
22							
24							
26							
28							

WELL DIAGRAM





LEGEND

- Property line
- Fence line
- ⊕MW-1 Monitoring well location
- ●B-20 Soil boring location

NOTES:

1) *This map is not intended to be used for engineering design purposes.*

PROJ. MGR: Kenneth Broen	REVISIONS	BY	DATE
PREPARED BY: Richard Marvin			
DRAFTED BY: Michael Bruggemann			
CHECKED BY:			
PROJ. NO.: 90138-00237			
DWG. NO. 9-00870			
DATE: June 10, 1992			
DATUM: MSL			
CONTOUR INTERVAL = FEET			
USGS QUAD.: 7.5 min. Weehawken, N.J. (1981)			

GEOGRAPHIC NORTH

NOT TO SCALE

DUNN CORPORATION
35 Waterview Boulevard
Parsippany, New Jersey 07054
Tel: 201/299-9001 Fax: 201/299-0021

PEPSI COLA
BOTTLING WORKS

BOROUGH OF TETERBORO BERGEN COUNTY, NJ

FIGURE 2

SITE MAP

EXHIBIT 2

SITE INVESTIGATION REPORT

FORMER PEPSI-COLA METROPOLITAN BOTTLING PLANT
350 North Street
Teterboro, Bergen County, New Jersey
NJDEPE Case No. 92-04-16-1250

October 26, 1992

Volume I of II

Prepared for:
HARCO INDUSTRIES, INC.
AND
PEPSI-COLA METROPOLITAN BOTTLING CO., INC.

PREPARED BY:
ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES, INC.
1235A Route 23 South
PO Box 648
Wayne, NJ 07474
EWMA CASE No. 92317

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APPENDICES

Appendix No.

1.0) INTRODUCTION:

In August of 1992 Pepsi-Cola Metropolitan Bottling Company, Inc. (Pepsi-Cola), Harco Industries, Inc. (Harco) and Environmental Waste Management Associates, Inc. (EWMA) entered into an environmental consulting services agreement. In accordance with this agreement, EWMA presented a site investigation sampling plan proposal for the property located at 350 North Street, Teterboro, New Jersey (the subject site). In August of 1992 the proposal was accepted by all of the aforementioned parties. EWMA implemented the sampling program in September of 1992.

EWMA's sampling plan proposal was based on historical information about environmental conditions at the site. Specifically, EWMA was supplied with the preliminary site assessment performed by Environmental Strategies & Applications, Inc. (the ESA Phase I Environmental Audit), the site investigation performed by Dunn Corporation (the Dunn Phase II Site Assessment Report) and the on-site guidance of Harco representatives to develop a site specific sampling plan.

2.0) SCOPE OF WORK:

This site investigation report includes the following:

(1.) A review of relevant historical information identified pursuant to the ESA Phase I Environmental Audit and the Dunn Phase II Site Assessment Report *(this section outlines the areas of environmental concern addressed by this report);*

(2.) A technical overview of the site investigation *(this section establishes the regulatory, technical and qualitative standards applied to this site);*

(3.) Analytical findings and field observations *(this section presents EWMA's field measurements and all laboratory analytical results);*

(4.) Recommendations and conclusions *(this section evaluates the information gathered during the site investigation, states conclusions and describes the potential implications).*

This report is intended to provide a comprehensive overview of environmental conditions at the site. Where contamination exists above applicable cleanup standards, remedial action alternatives will be proposed to bring the site into compliance with federal, state, and local environmental laws, regulations and ordinances.

3.0) HISTORICAL INFORMATION:

The historical information section of this report presents the historical basis for each area of potential environmental concern addressed herein. Furthermore, this section shall present a review of the regulatory concerns for each area of concern.

3.1) Former USTs:

Residual contamination from two former USTs was identified as an area of potential environmental concern in the ESA Phase I Environmental Audit. Based on reports received from plant personnel, ESA stated that two USTs, containing either gasoline or diesel fuel were removed from the site in or around 1984.

Dunn Corporation collected soil and groundwater samples to screen the area for evidence of a discharge from the former UST system. Evidence of a suspected discharge was discovered when volatile organic contaminants (benzene, chlorobenzene, ethylbenzene, toluene, xylenes, etc.) were detected in soil samples. The discharge was subsequently confirmed when groundwater contamination was discovered.

On May 7, 1992 the New Jersey Department of Environmental Protection and Energy (NJDEPE) Environmental Action Hotline was notified by the counsel for Pepsi-Cola that volatile organic contaminants had been detected in a groundwater sample collected from a monitoring well located in the backfilled excavation of two removed USTs (the operator assigned Case No. 92-05-07-1755-36).

The location of the soil borings installed by Dunn Corporation can be seen on the site plans, which are included with this report as Drawings No. 1 and No. 2. The aforementioned groundwater samples were collected from MW-1.

3.2) 10,000 Gallon Fuel Oil UST:

The 10,000 gallon fuel oil UST was identified as a potential area of environmental concern in the ESA Phase I Environmental Audit. Dunn Corporation collected soil samples around the perimeter of the tank to screen for evidence of a discharge.

On April 16, 1992 the NJDEPE Environmental Action Hotline was notified by the counsel for Pepsi-Cola that soil contamination had been observed adjacent to the existing fuel oil UST (the operator assigned Case No. 92-04-16-1250-21). Laboratory results from one of the screening samples indicated that several

volatile organic contaminants (ethylbenzene, tetrachloroethene, toluene and xylenes) were present. The concentrations of the aforementioned contaminants were below the applicable cleanup standards.

The location of the fuel oil UST and the soil borings installed by Dunn Corporation can be seen on EWMA's site plans, which are included with this report as Drawings No. 1 & 3.

3.3) Suspected UST:

The ESA Phase I Environmental Audit identified a suspicious staining pattern (the pattern was identical to a stain observed around the existing fuel oil UST vent pipe) on the wall of the building. ESA suggested that a second UST may have been removed (or abandoned in place) in the general vicinity at some time in the past and that residual contamination should be considered an area of environmental concern. Dunn Corporation installed two soil borings to screen for residual contamination or locate the tank (if abandoned in place). Dunn Corporation reported that no evidence of a second tank was noted, nor was any evidence of contamination or a backfilled tank excavation found.

3.4) Former Drum Storage Area:

The ESA Phase I Environmental Audit identified several 55 gallon drums containing waste oil at the site. ESA stated that several of the drums were not properly sealed and that small amounts of dark staining was present on the asphalt in the vicinity of the drums. Dunn Corporation collected two soil samples to screen for potential soil contamination. Laboratory analytical results did not reveal contamination. However, the samples were not analyzed for the appropriate parameters according to the NJDEPE technical regulations. According to the technical regulations, initial screening soil samples must be analyzed for volatile organic compounds, total petroleum hydrocarbons, base neutral compounds, priority pollutant metals and PCBs when waste oil contamination is suspected.

3.5) Soil Quality/Building Expansion Area:

Since several areas of potential environmental concern were identified around the site and the aforementioned former USTs were located in the vicinity, the proposed building expansion area was addressed in the site investigation.

3.6) Water Quality/Production Well:

Since several areas of potential environmental concern were identified around the site, sampling of the on-site water supply well was proposed.

3.7) Regulatory Implications:

In accordance with the reporting obligations under the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and the Underground Storage of Hazardous substances Act, N.J.S.A. 58:10A-21 et seq., the NJDEPE was notified of two suspected discharges from the UST system at the subject site. Since the NJDEPE defines a UST system as any one or combination of tanks, including appurtenant pipes, lines, fixtures, and other related equipment, the case numbers assigned to the separate reports have been consolidated under Case No. 92-04-16-1250 and UST Registration No. 0032663. On June 4, 1992 the NJDEPE issued a Scope of Work specifying investigative and corrective actions required pursuant to the aforementioned regulatory programs. Therefore, all investigative actions that pertain to the UST system at this site (this includes former and existing USTs) are subject to oversight and review by the NJDEPE Industrial Site Evaluation Element (ISEE) Bureau of Underground Storage Tanks (BUST).

Prior to EWMA's site investigation, there was no evidence indicating that contamination existed, or that discharges had occurred in the remaining four areas of environmental concern. Therefore, the portions of this investigation that pertain to these areas will not be reported to the NJDEPE unless actual contamination is found. However, in order to sufficiently address all of the areas of potential environmental concern at the site, the investigation of all of these areas was incorporated into EWMA's sampling plan.

4.0) TECHNICAL OVERVIEW:

EWMA's site investigation sampling plan was designed and implemented in accordance with the NJDEPE Site Remediation Program Technical Requirements for Site Remediation (the technical regulations), N.J.A.C. 7:26:E, proposed on May 3, 1992 (24 N.J.R. 1695). The technical regulations provide guidance concerning the environmental investigation and remediation at contaminated sites or sites at which contamination is suspected. The NJDEPE has implemented technical regulations as the NJDEPE's primary guidance document, replacing the Division of Responsible Party Site Remediation's Remedial Investigation Guide, the Environmental Cleanup Responsibility Act (ECRA) Cleanup Plan Guide, the BUST Scope of Work document and the BUST Technical Guidance document.

The cleanup standards referenced throughout this report are the NJDEPE Site Remediation Program Cleanup Standards for Contaminated Sites (the cleanup standards), N.J.A.C. 7:26D, proposed on February 3, 1992 (24 N.J.R. 373). The NJDEPE has implemented the use of these standards to determine: what concentration of contaminants need to be present at a site to consider the site contaminated; which areas of environmental concern need additional investigation; and the concentration of a contaminant allowed to remain for a site to be considered "clean".

Please be advised that the aforementioned Technical Requirements for Site Remediation and Cleanup Standards for Contaminated Sites have not been promulgated at the time this report is written. However, upon adoption, or at any time thereafter, if the cleanup standard for a given contaminant is revised, then remediation to achieve that new adopted standard may be required. In addition, prior to a determination from the NJDEPE that no further action is required at a site (or part of a site), the NJDEPE will review the work for compliance with the technical regulations.

In order to comply with the technical regulations, the Discharge Investigation and Corrective Action Report (DICAR) described in the June 4, 1992 NJDEPE/BUST Scope of Work and required pursuant to NJDEPE Case No. 92-04-16-1250, must be submitted in the form of a Remedial Investigation Report. In addition, effective April 25, 1992, all persons performing tank services must be certified per N.J.S.A. 58:10A-24.1-8. All work related to any tank service must be conducted by, or under the direct supervision of an individual certified in the activity being conducted. All documents (permit applications, reports, proposals) submitted to BUST must be prepared and signed by an appropriately certified individual.

Please be advised that EWMA and its personnel that performed the field work during this entire investigation are certified in accordance with N.J.S.A. 58:10A-24.1-8. In addition, EWMA complied with the sampling protocol and professional standards published in the NJDEPE Field Sampling Procedures Manual (effective May 1992) during all sampling events.

4.1) Former USTs:

Previous investigation of the groundwater in the area of the former USTs (performed by Dunn Corporation) had indicated that groundwater contaminants were present above the applicable cleanup standards. Subsequently, EWMA installed two additional groundwater monitoring wells to delineate the extent of groundwater contamination and determine the groundwater flow direction. Previously existing monitoring well (MW-1) had been installed in the backfilled

excavation of the removed USTs (the suspected source of the groundwater contamination) in accordance with the technical regulations. Therefore, EWMA sited MW-2 in the anticipated downgradient groundwater flow direction and sited MW-3 in a position that was believed to be upgrade from the contamination source. Prior to the installation of MW-2 and MW-3, EWMA installed four soil borings (EMB-1 to EMB-4) to assess subsurface conditions in the area. MW-1, MW-2, MW-3 and all soil boring locations are shown on site plans, included herein, labeled Drawing No.1 and Drawing No. 2.

Groundwater monitoring wells MW-2 and MW-3 were installed under the direct supervision of EWMA personnel and by a New Jersey licensed well driller from SBI Environmental Well Drilling, Inc. of Wayne, New Jersey on September 11, 1992. Split spoon samples were collected during well installation to define the subsurface stratigraphy and screen for soil contamination. The wells were constructed in accordance with standard NJDEPE specifications for monitoring wells in unconsolidated formations. According to the Dunn Corporation Phase II Site Assessment Report, MW-1 was also installed by a licensed driller and constructed according to standard NJDEPE unconsolidated well specifications.

Groundwater samples were collected from MW-1, MW-2 and MW-3 on September 25, 1992. In accordance with the NJDEPE technical regulations, the samples were delivered to a New Jersey certified laboratory and analyzed for volatile organic compounds calibrated for xylenes, methyl tertiary butyl ether (MTBE) and tertiary butyl alcohol (TBA) via EPA Method 624 (VO+10), base neutral compounds via EPA Method 625 (BN+15), lead, and Total Petroleum Hydrocarbons (TPH) via EPA method 418.1.

4.2) 10,000 Gallon Fuel Oil UST:

Based on the soil sampling activities and laboratory analytical results described in the Dunn Corporation Phase II Site Assessment Report, a site investigation of groundwater was implemented to address the 10,000 gallon fuel oil UST located in front of the subject building. Since the UST is still in the ground, monitoring wells (MW-4 and MW-5) were installed within 10 feet of the tank in the anticipated downgradient direction. MW-4 and MW-5 were installed according to the same procedure and specifications described above.

Four soil borings (EFB-1, EFB-2, EFB-3 and EFB-4) were installed adjacent to the fuel oil UST to screen the area for contamination. The samples were field screened with a properly calibrated photoionization detector (PID), which registers the presence of volatile organic compounds. In addition, soil/water agitation tests were performed to determine if the soils were contaminated with residual free product.

Groundwater samples were collected from MW-4 and MW-5 on September 25, 1992. In accordance with the NJDEPE technical regulations, the samples were delivered to a New Jersey certified laboratory and analyzed for VO+10, BN+15, TPH.

MW-4, MW-5 and all soil boring locations in this area are shown on site plans, included herein, labeled Drawing No. 1 and Drawing No. 3.

4.3) Suspected UST:

Since the Dunn Corporation Phase II Site Assessment Report did not contain sufficient information to detail the presence or absence of the suspected UST, EWMA installed two soil borings (EFB-5 and EFB-6) and one test pit (T-4) to gather additional information. The test pit and all soil boring installed in this area are shown on site plans, included herein, labeled Drawing No.1 and Drawing No. 3.

4.4) Former Drum Storage Area:

Since the Dunn Corporation Phase II Site Assessment Report did not contain sufficient information to detail the presence or absence of contamination in the former drum storage area EWMA installed three additional soil borings (EDB-1, EDB-2 and EDB-3). Three soil samples were collected, two of which were retained for laboratory analysis based on PID field screening results. In accordance with the NJDEPE technical regulations, the samples were analyzed for VO+10, BN+15, TPH, PCBs and priority pollutant metals (PPM). The soil boring locations are shown on the site plan labeled Drawing No. 1.

4.5) Soil Quality/Building Expansion Area:

Twelve soil borings (EEB-1 to EEB-12) and three test pits (T-1, T-2, and T-3) were installed across the rear of the site to assess general soil conditions. Some of these soil borings and test pits were also used to establish the limits of the contamination existing in the area of the former USTs.

Soil samples from EEB-1, EEB-2, EEB-3, EEB-4, EEB-5, EEB-7, EEB-9, and EEB-10 were delivered to a New Jersey certified laboratory for analysis for VO+10 and TPH. All soil boring and test pit locations are shown on site plans, included herein, labeled Drawing No. 1 and Drawing No. 2.

4.6) Water Quality/Production Well:

EWMA was not able to obtain a representative sample from the on-site production well because the pumping system was not operational. Therefore, the quality of the on-site water supply well water can not be assessed at this time.

5.0) SITE INVESTIGATION FINDINGS:

5.1) Former USTs:

Laboratory analysis of the samples collected from MW-1 and MW-2 registered several individual volatile organic compounds above the applicable groundwater cleanup standards. Volatile organic compounds were not detected in MW-3. Several base neutral compounds were detected in MW-1 and MW-2 at concentrations below the applicable cleanup standards. A single base neutral compound, bis (2-ethylhexyl) phthalate (a common laboratory contaminant that was detected in the sample and the quality control field blank), was detected in MW-3 at a concentration of 2.2 ppb. Lead was detected in MW-1 at a concentration of 0.002 parts per million (ppm) and in MW-2 at a concentration of 0.005 ppm. Lead was not detected in MW-3. Petroleum hydrocarbons were detected in MW-1 at a total concentration of 2.06 ppm. Petroleum hydrocarbons were not detected in MW-2 or MW-3.

Laboratory analysis of the sample collected from MW-1 registered a total organic contaminant concentration of 6.1409 ppm. Three individual contaminants, benzene (923 ppb), chlorobenzene (16 ppb) and total xylenes (54 ppb), were detected above the applicable cleanup standards.

Laboratory analysis of the sample collected from MW-2 registered a total organic contamination concentration of 1.3633 ppm. Two individual contaminants, benzene (51.5 ppb) and chlorobenzene (75 ppb), were detected above the applicable cleanup standards.

Laboratory analysis of the sample collected from MW-3 did not register any organic compounds aside from the aforementioned laboratory contaminant bis (2-ethylhexyl) phthalate.

In accordance with NJDEPE sampling protocol, EWMA obtained water level elevations from MW-1, MW-2 and MW-3 during sample collection activities on September 25, 1992. These water level measurements were used to create the groundwater flow contour plan included as Drawing No. 4. Based on groundwater elevation levels collected on September 25, 1992, groundwater flow direction is to the south. The southerly groundwater flow direction indicated by

topographic conditions and surface water flow direction observed in the area. Therefore, EWMA returned to the site on October 19, 1992 to collect a second round of water level elevations. Based on groundwater elevation levels collected on October 19, 1992, groundwater flow direction is to the southwest. Drawing No. 5 is the groundwater flow contour plan created with the data obtained on October 19, 1992.

The groundwater flow direction indicated by Drawing No. 5 is more representative of the actual groundwater flow pattern at the site due to several factors. Only two weeks had elapsed from the time the monitoring wells were installed to the sample collection date (September 25, 1992). Therefore, groundwater conditions in the wells may not have completely stabilized by September 25, 1992.

Table No. 1 summarizes the laboratory analytical results for the samples collected on September 25, 1992 from MW-1, MW-2 and MW-3. Appendix No. 2 contains the complete laboratory analytical data package for the groundwater samples, including all laboratory results and the quality assurance and quality control information.

5.2) 10,000 Gallon Fuel Oil UST:

Aside from bis (2-ethylhexyl) phthalate and methylene chloride (common laboratory contaminants that were detected in the samples and the quality control field blank), laboratory analysis of the samples collected from MW-4 and MW-5 did not register any organic compounds.

On September 9, 1992 four soil borings, EFB-1, EFB-2, EFB-3 and EFB-4 were installed adjacent to the fuel oil UST (see the site plans included as Drawings No 1 and No. 3). The soil borings were advanced via continuous split spoon sampling. Based on visual examination and PID screening, the soil samples collected from EFB-2 and EFB-4 did not contain evidence of contamination. PID readings from EFB-1 ranged from 30 ppm to 64 ppm. The first sample collected from EFB-3 (1 to 3 feet below grade) registered 152 ppm on the PID. Visual staining and strong product odor indicated that the second sample collected from EFB-3 (three to five feet below grade) contained residual product contamination. Subsequently, EWMA advanced EFB-3 into the groundwater table and collected a groundwater sample with a disposable bailer. Approximately one quarter inch of free product was observed floating on the groundwater sample.

Table No. 2 summarizes the laboratory results for the samples collected on September 25, 1992 from MW-4 and MW-5. Appendix No. 2 contains the complete laboratory analytical data package for the groundwater samples,

including all laboratory results and the quality assurance and quality control information.

5.3) Suspected UST:

On September 9, 1992 two soil borings, EFB-5 and EFB-6, were installed to locate a second fuel oil UST area. Soils encountered during the installation of EFB-5 and EFB-6 were consistent with B-8 and B-9 (installed by Dunn Corporation), which demonstrated that the shallow fill in this area are underlain by clay. Subsequently, no evidence of a second UST was indicated by EWMA's borings. EFB-5 and EFB-6 are shown on the site plan, included as Drawing No. 1.

On September 11, 1992 EWMA supervised the excavation of a test pit (T-4). T-4 was installed beneath the stained area on the wall of the building (this staining had been the basis for suspecting a second UST). The test pit revealed a detached horizontal pipe approximately one foot below the ground surface of the site. EWMA personnel observed substantial evidence of corrosion, including several holes in the pipe. Free product was observed beneath and around the pipe. The test pit was extended to search for the opposite end of the pipe. Further excavation of the test pit revealed that this pipe was not connected to a second UST. The end of the pipe terminated just above the existing fuel oil UST. Specifically, the end of the pipe was resting approximately two inches away from the connection point between the active UST vent pipe and the tank body.

Residual product saturated soils were observed throughout the trench and free floating product was observed on groundwater that accumulated in the bottom of the trench.

5.4) Former Drum Storage Area:

Aside from methylene chloride and di-n-butyl phthalate (common laboratory contaminants that were detected in the samples and in the field blank), laboratory analysis of the samples collected from EDB-1 and EDB-3 did not detect any targeted volatile organic or base neutral compounds. Several tentatively identified volatile organic compounds (a total concentration of 431.7 ppb) and two tentatively identified base neutral compounds (total concentration of 3,706 ppb) were detected in the samples collected from EDB-3. The sample from EDB-1 registered a TPH concentration of 16.2 ppm and the sample from EDB-3 registered a TPH concentration of 21.1 ppm. Several priority pollutant metals were detected in the sample collected from EDB-1, including arsenic (0.68 ppm), chromium (5.6 ppm), copper (5.81 ppm), lead (3.39 ppm), mercury (0.012 ppm), nickel (5.28 ppm), selenium (0.06 ppm) and zinc (16.1 ppm). The priority pollutant metals detected in EDB-3 included arsenic (0.47 ppm), chromium (4.2

ppm), copper (5.8 ppm), lead (3.14 ppm), mercury (0.013 ppm), nickel (4.58 ppm), selenium (0.03 ppm) and zinc (14.4 ppm).

All of the aforementioned analytical results are well below the applicable NJDEPE cleanup standards.

Table No. 3 contains a complete summary of the laboratory analytical data for the samples collected from borings EDB-1 and EDB-3. Appendix No. 3 contains the complete laboratory analytical data package for the soil samples, including all laboratory results and the quality assurance and quality control information.

5.5) Soil Quality/Building Expansion Area:

Laboratory analysis of EEB-1, EEB-2, EEB-3, EEB-4, EEB-5, EEB-7, EEB-9, and EEB-10 registered TPH levels ranging from 20 ppm to 339 ppm. Methylene chloride was the only targeted volatile organic compound detected in all of the samples and only the sample from EEB-2 registered tentatively identified volatile organic compounds (11.6 ppb). Therefore, all of the aforementioned samples are in compliance with the applicable NJDEPE cleanup standards.

Table No. 4 contains a complete summary of the laboratory analytical data for the samples collected from borings EEB-1, EEB-2, EEB-3, EEB-4, EEB-5, EEB-7, EEB-9, and EEB-10.

Additional borings that were installed during this phase of the investigation included EEB-11 and EEB-12. These borings were installed near the former UST excavation. Visual inspection of EEB-11 did not reveal product staining, but the PID registered 15 ppm. Product staining was noted in EEB-12 and the PID registered a reading of 439 ppm.

In order to delineate the limits of the residual contamination in the former UST area, EWMA installed several test pits. Soil stratigraphy in T-1 and T-2 was consistent with the soils encountered throughout the site during various soil boring investigations. Specifically, approximately two feet of gravel and sandy fill material was underlain by clay. T-3 was installed in the backfilled excavation of the former USTs. The pits (T-1, T-2 and T-3) were examined visually for evidence of residual product staining and screened with a PID. Visual examination of the exposed soils in T-1 revealed staining in the fill on the southwestern end of the pit but not in the northeastern end. The fill material present in T-2 did not exhibit staining. Clay was encountered in T-1 and T-2 below the fill material; no staining was apparent. PID measurements collected from T-1 and T-2 registered 0.0 ppm(PID readings may have been inhibited by the wetness of the soils).

T-3 was installed in the area that was anticipated to be the eastern corner of the former USTs excavation. Fill materials were encountered to a depth of nine to ten feet below site grade. PID readings from the soils excavated from this pit ranged from 313 ppm to 1,312 ppm. The soils excavated from T-3 were saturated with water and a product sheen was observed. In addition, a strong product odor was encountered.

Borings EEB-1 through EEB-12 and T-1 through T-3 are shown on the site plan, included as Drawing No. 1. Appendix No. 3 contains the complete laboratory analytical data package for the soil samples, including all laboratory results and the quality assurance and quality control information.

6.0) CONCLUSIONS:

The following conclusions are based on the analytical results and field observations made during the implementation of the site investigation described herein:

(1.) Since the former drum storage area has been addressed according to NJDEPE technical standards and the analytical results are in compliance with all applicable cleanup standards, no further investigation of this area is required.

(2.) Both of the stains noted on the wall of the building (near the existing fuel oil UST vent pipe) appear to be the related to the existing UST. Therefore, a second UST is no longer suspected. This is based on the discovery of the second vent pipe, which appears to have been connected to the existing UST, and the absence of a second UST excavation.

(3.) Based on the laboratory analytical results, the soil quality in the potential building expansion area is in compliance with all applicable NJDEPE cleanup standards. This statement is made with the understanding that the building expansion area does not extend to the area of residual contamination from the former USTs.

(4.) Although no water quality data was obtained for the on-site production well, if there are no future plans to use this well, it should be sealed.

(5.) As reported earlier, the NJDEPE/BUST was notified of a suspected discharge from the existing fuel oil UST. EWMA's site investigation revealed the presence of residual product contaminated soil and free floating product on groundwater adjacent to the UST. Therefore, a discharge has been confirmed and the NJDEPE will require additional investigative and corrective actions. In order to comply with the NJDEPE cleanup standards, the removal of all free product and residual product that is capable of becoming free product is required. Specifically, due to

the presence of free product in contact with groundwater, the NJDEPE will require the excavation of all residual product contaminated soil, recovery of the free product, and a remedial investigation of groundwater. In addition, since this situation involves a UST, NJDEPE procedure dictates the removal of all hazardous substances from the UST system (including tank bottom sludges), and the subsequent repair, replacement or closure of the system.

Groundwater contamination was not detected in the samples collected from MW-4 and MW-5. However, since free product was encountered on groundwater in boring EFB-3 and test pit T-4, a third well will be required to determine the direction of groundwater flow in this area of the site. In addition, a minimum of two rounds of groundwater sampling will be required from all three monitoring wells to document the success of the remedial actions. As with the confirmed discharge form the former USTs at the site, the NJDEPE will require the submission of a remedial investigation report for this area of concern.

Based on the findings of our site investigation and the anticipated directives from the NJDEPE/BUST, EWMA recommends the immediate removal of the fuel oil UST. Immediate removal of the UST will eliminate the contamination source and allow the required groundwater investigation to proceed. In addition, it will simplify dealings with the NJDEPE if both areas of concern can be addressed in the same remedial investigation report.

Groundwater concerns in this area appear to be limited to the observed free floating product at this time (a dissolved product plume has not been detected at this time). Since the free floating product has not migrated a substantial distance, groundwater treatment should not be necessary to remediate this area. UST removal, soil excavation and disposal, and groundwater testing/monitoring costs are detailed in Appendix No. 1.

(6.) Various portions of this site investigation were biased towards the delineation of residual soil and groundwater contamination around the former USTs. At this time, EWMA has compiled enough information to prepare the required remedial investigation report for the former USTs area. However, due to the presence of volatile organic compounds in the groundwater significantly above the applicable NJDEPE standards, additional actions will be required. Specifically, the NJDEPE will require the submission of a remedial action workplan.

The remedial action workplan must be developed according to the NJDEPE technical regulations as follows:

According to the NJDEPE technical regulations, the first priority during remedial action is to contain and/or stabilize contaminants in all media to prevent

contaminant exposure to receptors and to prevent further movements of contaminants through any pathway. Since the USTs have already been removed, the groundwater contamination source in this area is the residual product contaminated soils remaining in the excavation (the permeable fill materials remaining in the excavation are saturated with residual product, which is capable of becoming free product). In addition, this contamination is slowly being released into the groundwater as a dissolved product groundwater contamination plume. As the contamination contacts groundwater, it migrates with the flow of the groundwater. Due to the former USTs proximity to the site border, some contamination may already have migrated off-site towards the rear of the property. Therefore, the excavation and removal of residual product contaminated soils remaining in the excavation is necessary.

Based on EWMA's site investigation, approximately 400 cubic yards of residual product contaminated soils exist in the area of the former USTs. The majority of this residual product contaminated soil is within the former excavation. Following the excavation of contaminated soils, post excavation sampling will be required to document the effectiveness of the remedial action. Post excavation sampling frequency will depend on the final dimensions of the excavation.

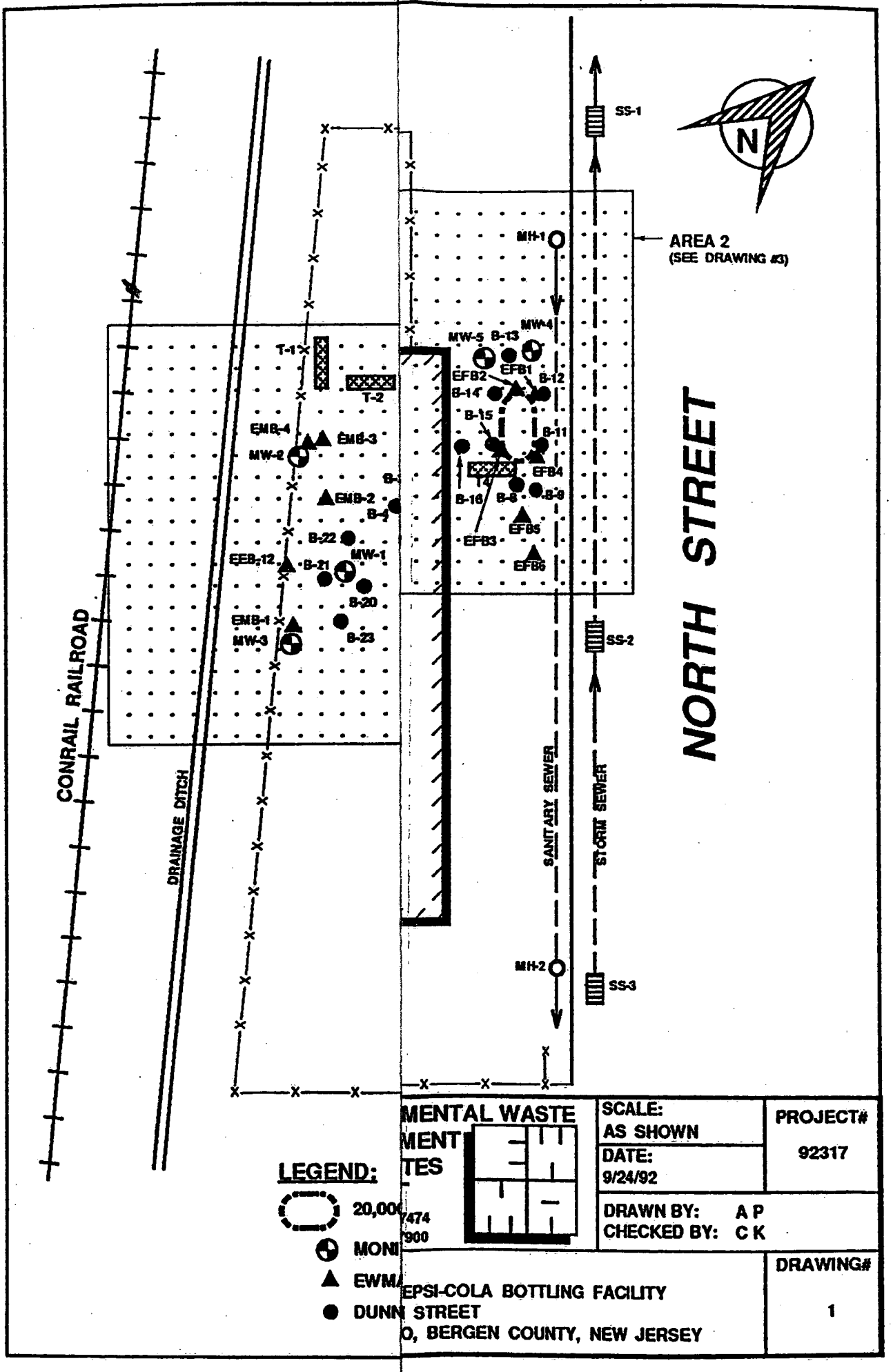
Under the remedial action workplan, it is likely that the NJDEPE will require the immediate implementation of a quarterly groundwater monitoring program. This will require the replacement of the monitoring well that will be destroyed when the residual product contaminated soils are excavated. In addition, at least one additional monitoring well (likely to be an off-site well) will be required to demonstrate that the groundwater contamination plume has been contained. Therefore, a quarterly groundwater monitoring program would include four monitoring wells.

Since groundwater contamination must be addressed in the remedial action workplan, the NJDEPE will require a New Jersey Pollutant Discharge Elimination System (NJPDES) permit application pursuant to the authority of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.). Specifically, the NJDEPE may require a NJPDES Discharge to Groundwater Permit (NJPDES-DGW) Category 7 (Underground Storage Tanks). The NJDEPE will determine the actual need for the permit based on a review of the permit application. Implementation of the NJPDES requirements is the enforcement mechanism by which the past, present, actual or potential pollutant discharges are brought into conformance and compliance with laws, regulations and standards.

Based on the elevated level of benzene contamination detected in this area, and since the dissolved product plume may have already migrated off-site, it is likely that the NJDEPE will require a NJPDES permit along with an active groundwater treatment system at this site. If an active groundwater treatment system is to be

installed, a treatment works approval (TWA) will be required. Furthermore, if air quality control apparatus is operated as part of the groundwater treatment system, a Certificate to Operate Air Quality Control Apparatus will be required.

All costs associated with the soil excavation and removal, groundwater monitoring and NJPDES groundwater treatment program are listed in Appendix No. 1.


N
SS-1
AREA 2
(SEE DRAWING #3)
MH-1
MW-4
MW-5
B-13
EFB2
EFB1
B-12
B-14
B-15
B-11
EFB4
B-16
B-8
B-9
EFB5
EFB3
EFB6
T-1
T-2
EMB-4
EMB-3
MW-2
EMB-2
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MW-3
B-23
NORTH STREET
CONRAIL RAILROAD
DRAINAGE DITCH
SANITARY SEWER
STORM SEWER
SS-2
MH-2
SS-3
LEGEND:
20,000
MONI
EWM
DUNN STREET
SCALE:
AS SHOWN
PROJECT#
92317
DATE:
9/24/92
DRAWN BY: A P
CHECKED BY: C K
DRAWING#
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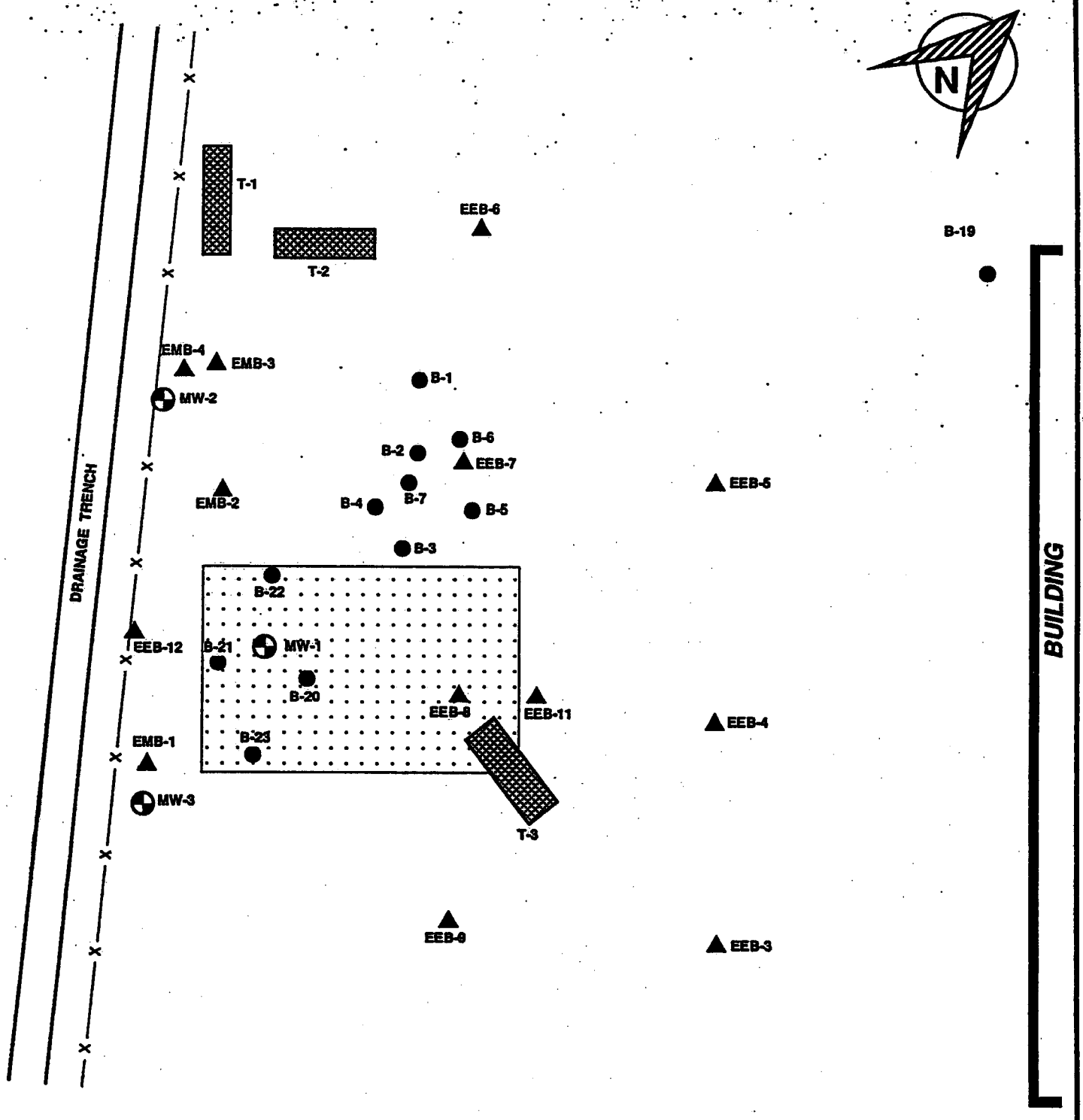

LEGEND:

- MONITORING WELL LOCATION
- EWMA SAMPLE LOCATION
- DANN CORPORATION SAMPLE LOCATION
- EWMA TEST PIT

ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES
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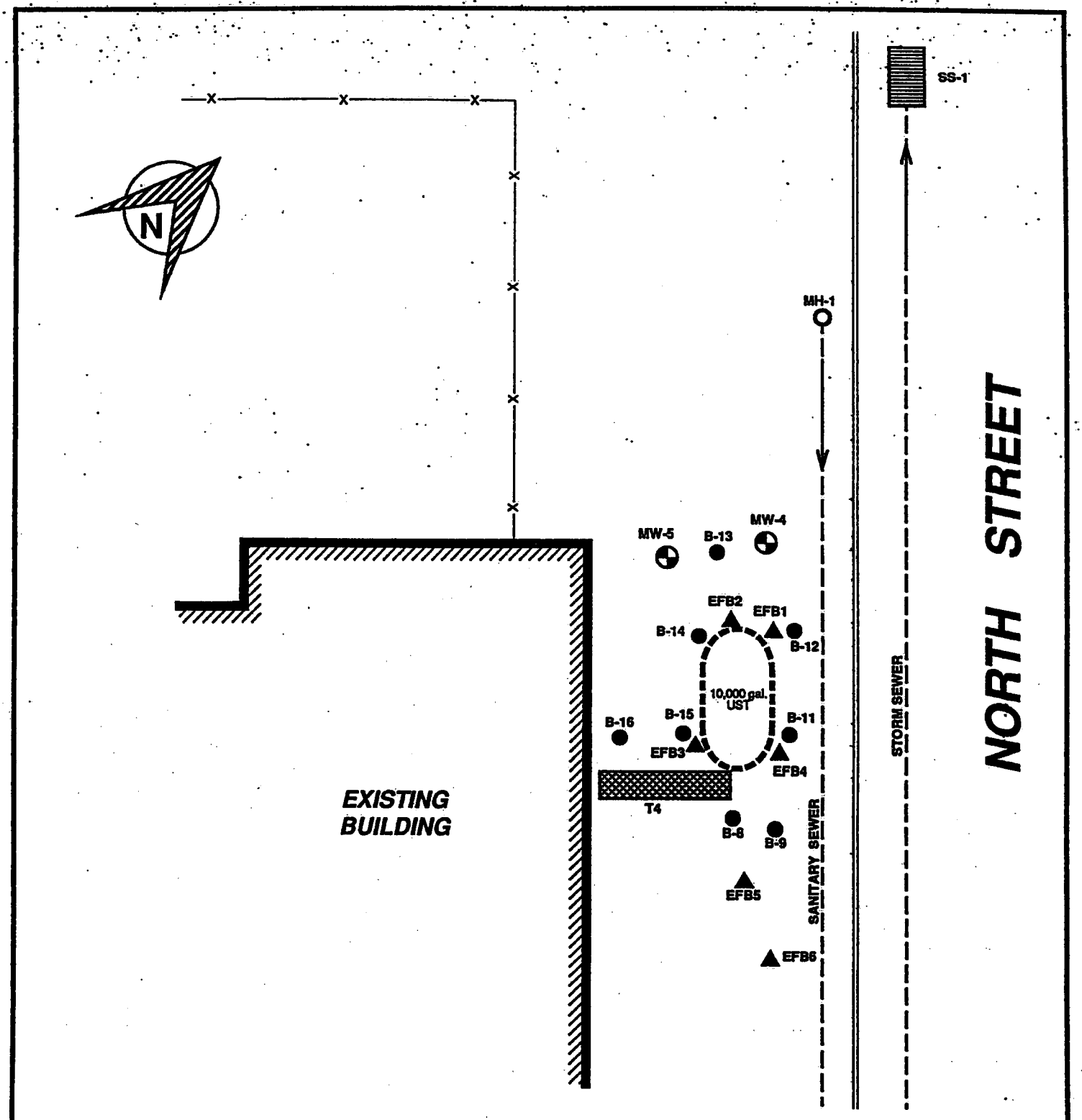
Wayne, N.J. 07474
Tel. (201)633-7900

SCALE: 1"=20'	PROJECT# 92317
DATE: 10/26/92	
DRAWN BY: A P CHECKED BY: C K	

SAMPLE LOCATION PLAN (AREA-1)
FORMER PEPSI-COLA BOTTLING FACILITY
350 NORTH STREET
TETERBORO, BERGEN COUNTY, NEW JERSEY

DRAWING# 2



LEGEND:

- MONITORING WELL LOCATION
- EWMA BORING LOCATION
- DUNN CORPORATION BORING LOCATION
- EWMA TEST PIT
- SANITARY SEWER MANHOLE

ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES

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DATE: 10/26/92	
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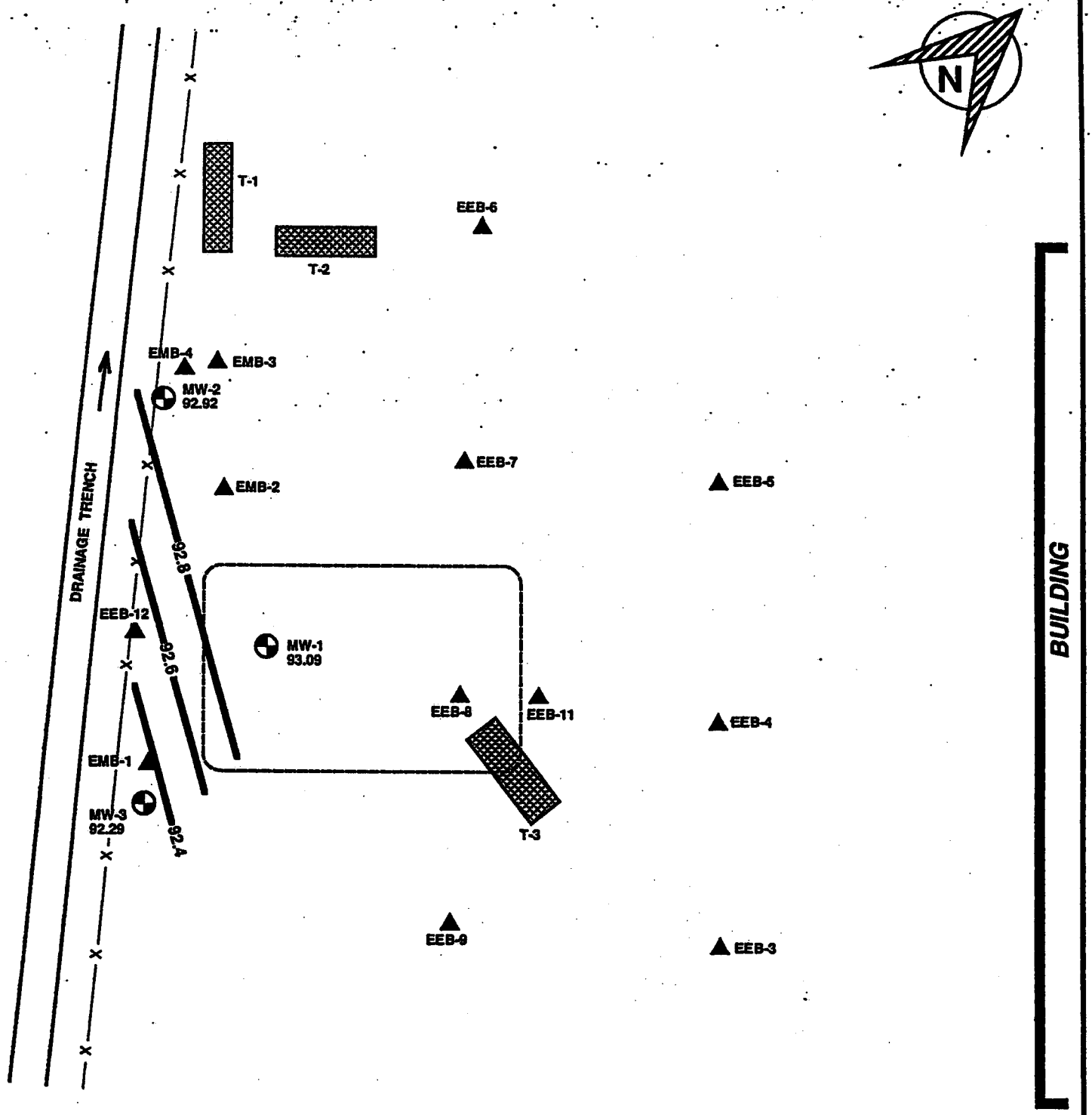
SAMPLE LOCATION PLAN (AREA-2)
FORMER PEPSI-COLA BOTTLING FACILITY
350 NORTH STREET
TETERBORO, BERGEN COUNTY, NEW JERSEY

DRAWING# 3



LEGEND:

MW 1 93.09 — MONITORING WELL LOCATION WITH WATER TABLE ELEVATION IN RELATION TO RELATIVE DATUM OF 100 FEET.

92.8 — GROUNDWATER CONTOUR LINE WITH RELATIVE WATER TABLE ELEVATION.

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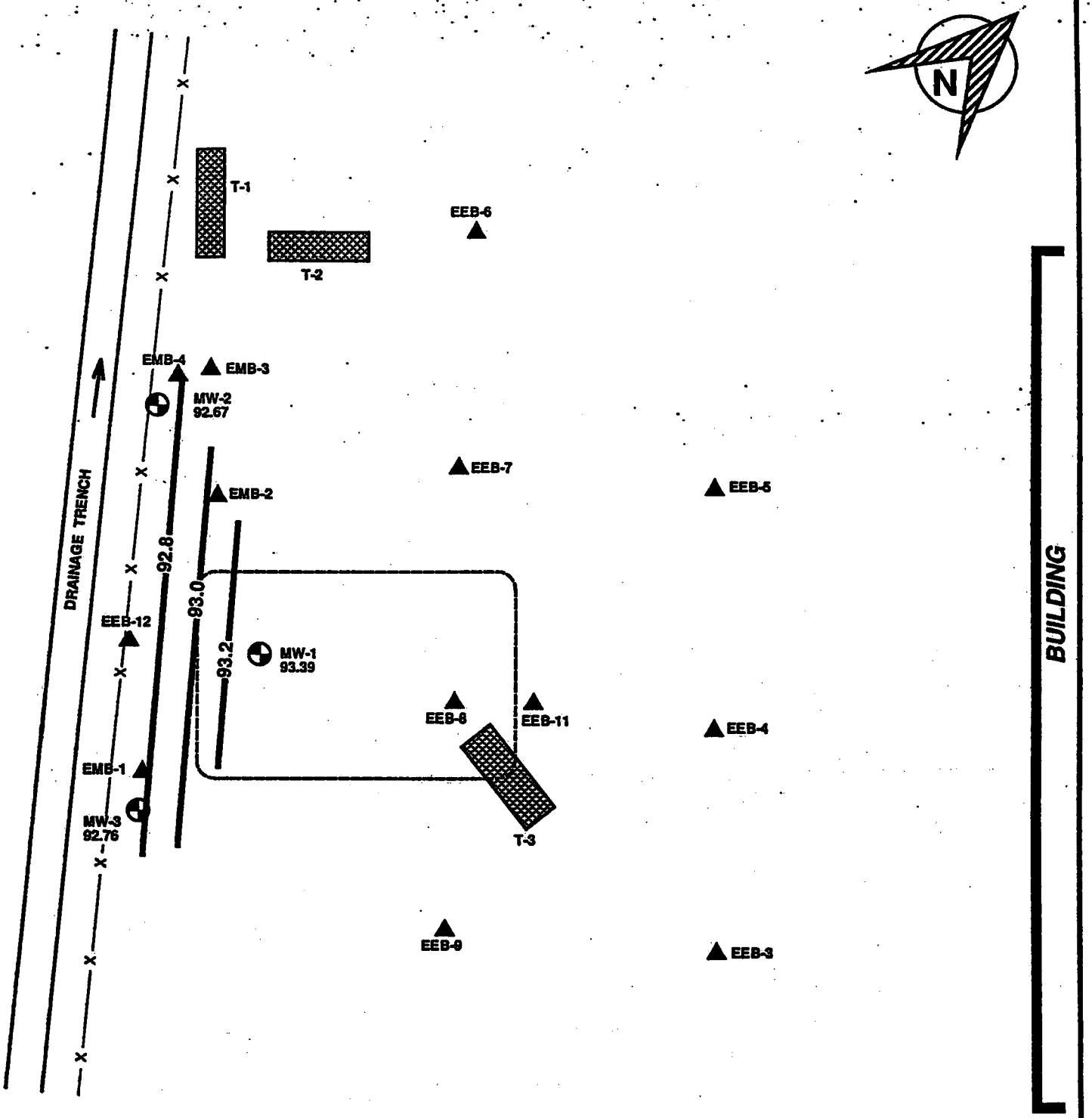
SCALE: 1"=20'	PROJECT# 92317
DATE: 10/26/92	
DRAWN BY: A P CHECKED BY: C K	

9/25/92 GROUNDWATER CONTOUR PLAN
FORMER PEPSI-COLA BOTTLING FACILITY
350 NORTH STREET
TETERBORO, BERGEN COUNTY, NEW JERSEY

DRAWING# 4



LEGEND:

MW 1 93.39 — MONITORING WELL LOCATION WITH WATER TABLE ELEVATION IN RELATION TO RELATIVE DATUM OF 100 FEET.

93.0 — GROUNDWATER CONTOUR LINE WITH RELATIVE WATER TABLE ELEVATION.

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SCALE: 1"=20'	PROJECT# 92317
DATE: 10/26/92	
DRAWN BY: A P CHECKED BY: C K	

10/19/92 GROUNDWATER CONTOUR PLAN
FORMER PEPSI-COLA BOTTLING FACILITY
350 NORTH STREET
TETERBORO, BERGEN COUNTY, NEW JERSEY

DRAWING# 5

TABLE NO. 1: FORMER UST AREA GROUNDWATER SAMPLING RESULTS 9/25/92

Sample Number:	MW-1	MW-2	MW-3	FIELD	TRIP	NJDEPE
lab ID number:	718001	718002	718003	718006	718007	cleanup
Sample Date:	9/25/92	9/25/92	9/25/92	9/25/92	9/25/92	standards
Units:	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Total Petroleum Hydrocarbons:	2060	ND	ND	ND	NA	NS
Lead:	2	5	ND	ND	NA	10
Targeted Volatile Organic Compounds (VOs):						
Methylene chloride	ND	ND	ND	1.1J	1.2J	3
Benzene	923**	51.5**	ND	ND	ND	1
Toluene	21J	ND	ND	ND	ND	1000
Chlorobenzene	16J**	75**	ND	ND	ND	5
Ethylbenzene	39J	ND	ND	ND	ND	700
Total Xylenes	54J**	ND	ND	ND	ND	40
1, 3-Dichlorobenzene	ND	11J	ND	ND	ND	600
1, 4-Dichlorobenzene	ND	11J	ND	ND	ND	70
Total Targeted VOs:	1053	148.5	ND	1.1J	1.2J	
Total Tentatively Identified VOs:						
1-Ethenyl-2-methylbenzene	409	80	ND	ND	NA	NS
1,4-Diethylbenzene	162	ND	ND	ND	NA	NS
2, 3-Dihydro-1-methyl-1H-indene	118	46.5	ND	ND	NA	NS
1, 2, 3, 5-Tetramethylbenzene	136	ND	ND	ND	NA	NS
(E)(1-Methyl-1-propenyl)benzene	151	167	ND	ND	NA	NS
1-Methyl-1-(2-propenyl)benzene	354	48.5	ND	ND	NA	NS
1, 2, 3, 4-Tetrahydro-5-methylnaphthalene	108	79	ND	ND	NA	NS
1, 4-Dihydro-1, 4-methanonaphthalene	127	ND	ND	ND	NA	NS
1-Ethylidene-1H-indene	147	ND	ND	ND	NA	NS
2-Ethyl-1, 3-dimethylbenzene	ND	61.5	ND	ND	NA	NS
2-Ethyl-1, 4-dimethylbenzene	ND	59.5	ND	ND	NA	NS
1, 2, 3, 5-Tetramethylbenzene	ND	161	ND	ND	NA	NS
1-Ethyl-2, 4, 5-trimethylbenzene	ND	54.5	ND	ND	NA	NS
2, 3-Dihydro-1, 3-dimethyl-1H-indene	ND	53.5	ND	ND	NA	NS
Unknown	363	ND	ND	ND	NA	NS
Total Tentatively Identified VOs:	2075	811	ND	ND	NA	
TOTAL VO+10	3128	959.5	ND	1.1J	NA	

QUALIFIERS:

** Indicates that this compound exceeds the applicable NJDEPE cleanup standard pursuant to N.J.A.C. 7:26D.

ND- This compound was not detected by laboratory analysis.

NA- This sample was not analyzed for this compound.

NS- There is no standard for this compound in the NJDEPE groundwater cleanup standards (N.J.A.C. 7:26D). Therefore, the generic cleanup standard of 1000 ppb should be used.

J- This compound was detected at a value below the minimum detection limit and greater than zero.

B- This compound was detected in the quality control blank. It indicates possible sample contamination and is not included in totals.

TABLE NO. 1 (Continued): FORMER UST AREA GROUNDWATER SAMPLES 9/25/92

Sample Number:	MW-1	MW-2	MW-3	FIELD	NJDEPE
lab ID number:	718001	718002	718003	718006	cleanup
Sample Date:	9/25/92	9/25/92	9/25/92	9/25/92	standards
Units:	ug/l	ug/l	ug/l	ug/l	ug/l
Base Neutral Compounds (BNs):					
1,3-Dichlorobenzene	ND	8.2J	ND	ND	600
1,2-Dichlorobenzene	2.5J	ND	ND	ND	600
Naphthalene	28.3	ND	ND	ND	30
2-Methylnaphthalene	66.6	13.1	ND	ND	NS
Acenaphthalene	3J	2.6J	ND	ND	400
Dibenzofuran	2.3J	2.1J	ND	ND	NS
Fluorene	4.1J	ND	ND	ND	300
Phenanthrene	3.4J	ND	ND	ND	NS
Di-n-butyl phthalate	3.1J	ND	ND	ND	900
Bis(2-ethylhexyl)phthalate	17B	5.6B	2.2JB	2.2J	30
Total Targeted BNs:	**113.3**	**26**	**ND**	**2.2J**	
Tentatively Identified BNs:					
1,2,4,-Trimethylbenzene	32.1	ND	ND	ND	NS
1-Ethyl-2-methylbenzene	32.1	ND	ND	ND	NS
1,2,3-Trimethylbenzene	34.6	ND	ND	ND	NS
2,3-Dihydro-1H-indene	158	31.6	ND	ND	NS
(1,1-Dimethylethyl)benzene	102	ND	ND	ND	NS
1,2,3,4-Tetramethylbenzene	35.9	ND	ND	ND	NS
1,2,3,5-Tetramethylbenzene	ND	24.2	ND	ND	NS
(E)(1-Methyl-1-propenyl)benzene	39.2	64.5	ND	ND	NS
1-Methyl-2-(2-propenyl)benzene	111	ND	ND	ND	NS
(3-Methyl-2-butenyl)benzene	26.2	ND	ND	ND	NS
2,3-Dihydro-1,3-dimethyl-1H-indene	ND	18.6	ND	ND	NS
2,3-Dihydro-1,2-dimethyl-1H-indene	ND	14.4	ND	ND	NS
1,3-Diethylbenzene	24.3	ND	ND	ND	NS
1,2,3 4-Tetrahydro-5-methyl-1H-indene	ND	16.1	ND	ND	NS
1,2,3 4-Tetrahydro-5-methylnaphthalene	56.2	ND	ND	ND	NS
2,3-Dihydro-3-methyl-1H-inden-1-one	26.7	ND	ND	ND	NS
1,4-Dihydro-1,4-methanonaphthalene	99.4	48.9	ND	ND	NS
2,3-Dihydro-3,3-dimethyl-1H-inden-1-one	ND	13.4	ND	ND	NS
1,5-Dimethylnaphthalene	ND	21	ND	ND	NS
1,3-Dimethylnaphthalene	29.3	38.9	ND	ND	NS
1,7-Dimethylnaphthalene	ND	21.6	ND	ND	NS
1,2-Dimethylnaphthalene	ND	11.9	ND	ND	NS
1,8-Dimethylnaphthalene	32.6	ND	ND	ND	NS
1-Ethoxynaphthalene	ND	27	ND	ND	NS
1-(2-Propenyl)naphthalene	ND	25.7	ND	ND	NS
Total Tentatively Identified BNs:	839.6	377.8	ND	ND	
TOTAL BN+15	**952.9**	**403.8**	**ND**	**ND**	
TOTAL ORGANIC CONTAMINANTS:	***6140.9***	***1363.3***	***ND***	***ND***	***10000***

QUALIFIERS:

ND- This compound was not detected by laboratory analysis.

NA- This sample was not analyzed for this compound.

NS- There is no standard for this compound in the NJDEPE groundwater cleanup standards (N.J.A.C. 7:26D). Therefore, the generic cleanup standard of 1000 ppb should be used.

J- This compound was detected at a value below the minimum detection limit and greater than zero.

B- This compound was detected in the quality control blank.

TABLE NO. 2: FUEL OIL UST GROUNDWATER SAMPLING RESULTS 9/25/92

Sample Number:	MW-4	MW-5	FIELD	TRIP	NJDEPE
lab ID number:	718004	718005	718006	718007	cleanup
Sample Date:	9/25/92	9/25/92	9/25/92	9/25/92	standard
Units:	ug/l	ug/l	ug/l	ug/l	ug/l
Targeted Volaitle Organic Compounds (VOs):					
Methylene chloride	ND	1.5	1.1	1.2	3
Total Targeted VOs:	ND	ND	1.1	1.2	
Tentatively Identified VOs:	ND	ND	ND	NA	
TOTAL VO+10	ND	ND	ND	NA	
Targeted Base Neutral Compounds (BNs):					
Bis(2-ethylhexyl)phthalate	6.1JB	ND	2.2J	NA	30
Total Targeted BNs:	ND	ND	2.2J	NA	
Tentatively Identified BNs:	ND	ND	ND	NA	
TOTAL BN+15	ND	ND	2.2J	NA	
TOTAL ORGANIC CONTAMINANTS:	*ND*	*ND*	*2.2J*	*NA*	*10000*

QUALIFIERS:

ND- This compound was not detected by laboratory analysis.

NA- This sample was not analyzed for this compound.

NS- There is no standard for this compound in the NJDEPE groundwater cleanup standards (N.J.A.C. 7:26D). Therefore, the generic cleanup standard of 1000 ppb should be used.

J- This compound was detected at a value below the minimum detection limit and greater than zero.

B- This compound was detected in the quality control blank. It indicates possible sample contamination and is not included in totals.

TABLE NO. 3: FORMER DRUM STORAGE AREA SAMPLING RESULTS

Sample Number:	EDB-1	EDB-1A	EDB-3	EDB-3A	FIELD-1	NJDEPE
lab ID number:	693017	693018	693019	693020	693021	cleanup
Sample Date:	9/11/92	9/11/92	9/11/92	9/11/92	9/11/92	standards
Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/kg
Total Petroleum Hydrocarbons (TPH):	16200	NA	21100	NA	0.24J	NS
Volatile Organic Compounds (VOs):						
Methylene Chloride	NA	7.6JB	NA	3.7JB	ND	10000
Total Tentatively Identified VOs:						
2-Ethyl-1, 4-dimethylbenzene	NA	ND	NA	117	ND	NS
1-Methyl-4-(1-methylethyl)benzene	NA	ND	NA	73.2	ND	NS
1, 2, 3, 5-Tetramethylbenzene	NA	ND	NA	83.8	ND	NS
1,3-Diethyl-5-methylbenzene	NA	ND	NA	60.2	ND	NS
1-Ethenyl-3-ethylbenzene	NA	ND	NA	67.3	ND	NS
1-Ethyl-2, 4, 5-trimethylbenzene	NA	ND	NA	30.2	ND	NS
TOTAL VO+15	NA	ND	NA	431.7	ND	
Base Neutral Compounds (BNs):						
Di-n-butyl phthalate	138J	NA	1820	NA	ND	100000
Tentatively Identified BNs:						
Mol sulfur (S8)	ND	NA	1690	NA	ND	NS
(z)-9-Octadecenamide	ND	NA	196J	NA	ND	NS
Total Tentatively Identified BNs:	ND	NA	1886J	NA	ND	
TOTAL BN+15	138J	NA	3706	NA	ND	

QUALIFIERS:

ND- This compound was not detected by laboratory analysis.

NA- This sample was not analyzed for this compound.

NS- There is no standard for this compound in the NJDEPE soil cleanup standards (N.J.A.C. 7:26D).

J- This compound was detected at a value below the minimum detection limit and greater than zero.

B- This compound was detected in the quality control blank. It indicates possible sample contamination and is not included in totals.

TABLE NO. 3 (continued): FORMER DRUM STORAGE AREA SAMPLING RESULTS

Sample Number:	EDB-1	EDB-1A	EDB-3	EDB-3A	FIELD-1	NJDEPE
lab ID number:	693017	693018	693019	693020	693021	cleanup
Sample Date:	9/11/92	9/11/92	9/11/92	9/11/92	9/11/92	standards
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Priority Pollutant Metals (PPM):						
Antimony	ND	NA	ND	NA	ND	14
Arsenic	0.68	NA	0.47	NA	ND	20
Beryllium	ND	NA	ND	NA	ND	2
Cadmium	ND	NA	ND	NA	ND	1
Chromium	5.6	NA	4.2	NA	ND	NS
Copper	5.81	NA	5.8	NA	ND	600
Lead	3.39	NA	3.14	NA	ND	100
Mercury	0.012J	NA	0.013J	NA	ND	14
Nickel	5.28	NA	4.58	NA	ND	250
Selenium	0.06	NA	0.3J	NA	ND	1
Silver	ND	NA	ND	NA	ND	40
Thallium	ND	NA	ND	NA	ND	2
Zinc	16.1	NA	14.4	NA	ND	1500

QUALIFIERS:

ND- This compound was not detected by laboratory analysis.

NA- This sample was not analyzed for this compound.

NS- There is no standard for this compound in the NJDEPE groundwater cleanup standards (N.J.A.C. 7:26D).

J- This compound was detected at a value below the minimum detection limit and greater than zero.

B- This compound was detected in the quality control blank. It indicates possible sample contamination and is not included in totals.

TABLE NO. 4: SOIL SAMPLING RESULTS

Sample Number:	EEB-1	EEB-2	EEB-3	EEB-4	EEB-5	EEB-7	EEB-9	EEB-10	NJDEPE
lab ID number:	693001	693003	693005	693007	693009	693011	693013	693015	cleanup
Sample Date:	9/11/92	9/11/92	9/11/92	9/11/92	9/11/92	9/11/92	9/11/92	9/11/92	standard
Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Total Petroleum Hydrocarbons (TPH):	200	31500	37200	137000	238000	24200	339000	65100	NS
Volatile Organic Compounds (VOs):									
Methylene Chloride	1.6JB	2.6JB	1.2JB	2.0JB	1.9JB	2.5JB	3.2JB	4.2JB	10000
Total Tentatively Identified VOs:	ND	11.6	ND	ND	ND	ND	ND	ND	NS
TOTAL VO+15	ND	11.6	ND	ND	ND	ND	ND	ND	

QUALIFIERS:

ND- This compound was not detected by laboratory analysis.

NA- This sample was not analyzed for this compound.

NS- There is no standard for this compound in the NJDEPE soil cleanup standards (N.J.A.C. 7:26D).

J- This compound was detected at a value below the minimum detection limit and greater than zero.

B- This compound was detected in the quality control blank. It indicates possible sample contamination and is not included in totals.

APPENDIX NO. 1

REMEDIATION COST ESTIMATE

Former Pepsi-Cola Bottling Facility Remediation Costs
EWMA Job No. 92317

I. PREPARATION OF A REMEDIAL ACTION WORKPLAN:	
a. Professional Services:	$3,000.00
b. NJDEPE Review Fee (based on total cleanup est. below):	$5,000.00
II. SOIL REMEDIATION IN FORMER USTs AREA:	
1. Source Removal Activities (400 yds^3):	
a. Pre-classification soil borings:	$1,500.00
b. Waste classification sample analysis:	$1,250.00
c. Soil removal activities:	
(1) Dewatering of excavation:	$5,000.00
(2) Excavation, loading and backfilling:	$4,000.00
d. Post excavation soil sample analysis:	$2,680.00
(1) NJDEPE required field blank:	$330.00
e. Certified clean fill (400 yds^3):	$6,720.00
f. Soil disposal:	$50,400.00
g Professional services:	$4,000.00
III. 10,000 GALLON FUEL OIL UST REMOVAL AND SOIL REMEDIATION:	
1. UST Removal Activities:	
a. NJDEPE Closure Plan Application review fee:	$170.00
b. UST removal:	
(1) Excavation, removal, and disposal of tank:	$6,500.00
(2) Pump out product and clean interior:	$1,000.00
(3) Disposal of tank contents (liquid/sludge)[1]:	$200.00
c. Post excavation sample analysis[2]:	$300.00 to $1,550.00
(1) NJDEPE required field blank:	$50.00 or $300.00
d. Certified clean fill (100 tons):	$1,200.00
e. Waste classification sample analysis :	$1,250.00
f. Soil disposal[3]:	$5,500.00
g. Professional services:	$2,000.00
IV. GROUNDWATER MONITORING PROGRAM:	
1. Monitoring Well Installation Activities:	
a. Installation of Sentinel/Delineation wells (four wells):	$8,000.00
b. Well surveying:	$1,500.00
c. NJDEPE form A/B preparation:	$1,000.00
d. Professional services:	$2,000.00

2. Monitoring Well Sampling Program Activities:

a. Well sampling:	
(1) Fuel Oil UST area [4]:	$2,025.00/per round
(2) Gas/Diesel UST area[5] :	$2,700.00/per round
(3) NJDEPE required QA/QC blanks:	$675.00/per round
b. Professional services:	$1,250.00/per round

V. GROUNDWATER REMEDIATION:

1. Groundwater Treatment System Activities:

a. NJPDES /DGW Permit application:	$4,000.00
(1) NJPDES annual discharge fee:	$2,250.00
b. Treatment Works Approval Permit fee:	$500.00
c. Certificate to Operate Air Quality Control Apparatus:	$1,000.00
(1) annual certificate renewal fee:	$75.00
d. Installation of two (2) recovery wells:	$8,000.00
e. Installation of Groundwater Treatment System[6]	$40,000.00
f. Operation & Maintenance[7]:	$18,000.00
g. Influent/Effluent sample analysis[8]:	$4,500.00/$3,500.00
h. Professional services for treatment system implementation:	$8,000.00

VI. CLEANUP COST SUMMARY:

Preparation of a Remedial Investigation Workplan (Year 1):		$8,000.00
Soil Remediation in the Former USTs Area (Year 1):		$75,880.00
10,000 Gallon Fuel Oil UST Removal and Soil Remediation (Year 1):		$18,170.00
Groundwater Monitoring Program:		
Year 1:		$35,050.00
Year 2:		$18,500.00
Year 3:		$18,500.00
Year 4:		$18,500.00
Year 5:		$18,500.00
Groundwater Remediation:		
Year 1:		$84,000.00
Year 2:		$23,825.00
Year 3:		$23,825.00
TOTAL CLEANUP COST:	**Year 1**	**$221,100.00**
	Year 2	**$42,325.00**
	Year 3	**$42,325.00**
	Year 4	**$18,500.00**
	Year 5	**$18,500.00**
		$342,750.00

Former Pepsi-Cola Bottling Facility Remediation Costs
EWMA Job No. 92317

NOTES:

1 The approximate charge for waste oil removal is $1.00/gallon. The cost listed above is an estimate because the amount of product remaining in the tank is not known at this time.

2 All post excavation samples must be analyzed for total petroleum hydrocarbons (TPH), any samples with TPH levels > 1,000 ppm must also be analyzed for volatile organic compounds with a library search (VO+10).

3 Soils excavated during removal of the 10,000 gallon fuel oil UST will be stockpiled on-site until disposal arrangements are made (loading will be performed in conjunction with soil remediation activities).

4 Two (2) sampling rounds will be conducted in the first year to document that groundwater in this area is in compliance with applicable cleanup standards.

5 Four (4) sampling rounds will be conducted per year, until laboratory analytical results domonstrate compliance with applicable cleanup standards.

6 Installation of one (1) Shallow Tray air stripper, two (2) submersible groundwater pumps, one (1) 500 gallon equalization tank, including electrical hookup, piping, trenching and repaving of excavated areas.

7 Annual cost for weekly maintenance checks, system calibrations, system adjustments, effluent sample collection, separate phase product disposal, regeneration of carbon, electrical power cost. Total cleanup cost reflects operation for three years (maximum anticpated operating duration).

8 Laboratory analysis cost for effluent monitoring per year (weekly for first month, monthly for remainder of system operation).

APPENDIX NO. 2

LABORATORY ANALYTICAL DATA REPORT NO. 10920-718
GROUNDWATER DATA

Integrated Analytical Labs

Integrated Analytical Laboratories, Inc.

150 Railroad Avenue
Paterson, N.J. 07501

201-523-2509
Fax # 201-523-2818

ANALYTICAL DATA REPORT

for

Environmental Waste Management Associates
1235A Route 23 South
Wayne, NJ 07470

Project: Pepsi-Cola/Harco Industries #92317
Lab Case Number: 10920-718
Date Received: September 28, 1992

CLIENT SAMPLE ID	LABORATORY SAMPLE #
MW-1	718001
MW-2	718002
MW-3	718003
MW-4	718004
MW-5	718005
Field-1	718006
Trip	718007

All NJDEPE protocol were followed during analyses. These data have been reviewed and accepted by:

Michael H. Leftin, Ph.D.
Laboratory Director

The liability of Integrated Analytical Laboratories, Inc. is limited to the actual cost of the analyses performed.

SECTION 2: FACILITY DETAIL REPORTS

...Continued...

[redacted]

EXHIBIT 3

Record 3: PEPSI COLA BOTTLING
TETERBORO, NJ (EDR ID# S104445884)

AIR EMISSIONS

Facility has permitted air emissions ..... NO

Facility has reported emergency releases to air ..... NO

Facility has compliance data ..... NO

WATER DISCHARGES

Facility has permitted waste water discharges ..... NO

Facility has reported emergency releases to water ..... NO

Facility has enforcement actions ..... NO

WASTE MANAGEMENT

Facility generates hazardous waste ..... NO

Facility treats, stores, or disposes of hazardous waste on-site ..... NO

Facility has received Notices of Violations ..... NO

Facility has been subject to RCRA administrative actions ..... NO

Facility has been subject to corrective actions ..... NO

Facility handles PCBs ..... NO

Facility uses radioactive materials ..... NO

Facility manages registered aboveground storage tank incidents ..... NO

Facility manages registered underground storage tank incidents ..... NO

Facility has reported leaking underground storage tank incidents ..... YES

Facility has reported emergency releases on land ..... NO

Facility has reported hazardous material incidents to DOT ..... NO

WASTE DISPOSAL

Facility is a Superfund site ..... NO

Facility has a Record of Decision on it ..... NO

Facility has a known or suspect abandoned, inactive, or uncontrolled hazardous waste site ..... NO

Facility has a reported Superfund Lien on it ..... NO

Facility is listed as a state hazardous waste site ..... NO

Facility has disposed of solid waste on site ..... NO

MULTI-MEDIA

Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 ..... NO

Facility produces pesticides and has notified EPA under Section 7 of FIFRA ..... NO

Facility manufactures or imports toxic chemicals on the TSCA list ..... NO

Facility has inspections under FIFRA, TSCA or EPCRA ..... NO

Facility is listed in EPA's index system ..... NO

Facility is listed in a county/local unique database ..... YES

HEALTH AND SAFETY

Facility has been inspected by the Occupational Safety and Health Administration ..... NO

Facility has violations cited by the Occupational Safety and Health Administration ..... NO

Facility has had accidents according to the Occupational Safety and Health Administration ..... NO

TOTALS (YES) 2

WASTE MANAGEMENT

Facility has reported leaking underground storage tank incidents

DATABASE: Leaking Petroleum Storage Tank Database (LUST)

PEPSI COLA BOTTLING
350 NORTH ST
TETERBORO, NJ
EDR ID #S104445884

LUST:

Case ID:	92-04-16-1250
Facility Status:	Site Issued Letter of No Further Action
Facility Phone:	Not reported
UST ID:	0032663
Lead Program Assigned to Case:	Bureau of Underground Storage Tanks
TMS Number:	Not reported
Remedial Level:	Site has confirmed soil and ground water contamination.
Case Manager:	Not reported
No Further Action:	9/30/1994 0:00:00
RAW Approved:	Not reported
CEA:	Not reported
Date CEA Lifted:	Not reported
Dead Notice:	Not reported